# Pipeline Politics:

## The Geopolitical and Geostrategic Implications of Exploitation and Extraction of Energy Reserves from the Littoral States of the Caspian Sea Basin

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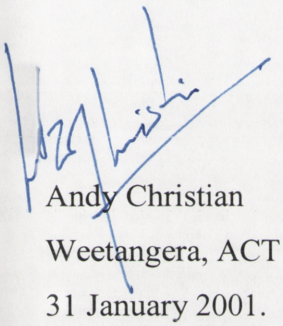

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Above all, this work is, as are all things are, dedicated to my Lord and Saviour - Jesus Christ.

All interpretations and conclusions (except where indicated) and any errors are entirely my responsibility.

*Ne Obliviscaris Invictus Maneo*

# Introduction

## Precious Commodities

Since the fragmentation of the Soviet Union in 1991, there has been heightened international interest in the Caspian Sea basin. This interest has generally focused on two commodities contained within the Caspian Sea and its surrounding basin: caviar and hydrocarbon reserves. The interest in caviar has focused on the ever decreasing amount of roe that is being gleaned from the pre-historic sturgeon, whereas the interest in the hydrocarbon reserves has revolved around the seemingly vast amounts contained within the region just waiting to be exploited and exported. The Caspian has long been tied to the importance of these two indigenous commercially important commodities.

During the Soviet period, fishing limits for sturgeon, from whence caviar originates, were strictly enforced, and with good reason: the Caspian supplied then, as it does now, up to 90 percent of the world demand for caviar[1]. To place the significance of this into perspective, there are 25 different species of sturgeon with only three; Russian (*Acipenser gueldenstaedtii*), Stellate (*Acipenser stellatus*), and the famed Beluga (*Huso huso*); indigenous to the Caspian Sea, and it is only these three that produce genuine Caspian caviar[2]. In the 1980s, according to the Caspian Fishery Research Institute in Astrakhan, the Soviet Union recorded sturgeon catches of up to 26,000 tons, but this figure for all of the Caspian nations is now closer to 3,000 tons[3]. A female Beluga (the largest of the three), can weigh as much as 800 kilograms, reach almost 10 metres in length and live up to 100 years[4]. A mature sturgeon will provide up to 90 kilograms of roe, which when mixed correctly with salt, transforms into caviar. This precious

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[1] *Caspian Region Promise and Peril* (MAP) (National Geographic Society: Washington, 1999).

[2] There is a fourth; Sterlet, but this is considered all but extinct. The Don-Volga canal has led to a degree of hybridisation between Black Sea and Caspian Sea sturgeon. "General Information Caspian Sea", *Caspian Environment Programme* at www.caspianenvironment.org.htm [09/01/2001].

[3] Robert Cullen, "The Caspian Sea" *National Geographic*, Volume 195, Number 5 (May, 1998). p. 31.

[4] "The Beluga Sturgeon: Caviar in Danger", *Ted Case Studies*, at www.american.edu/projects/mandala/TED/STURGEON.HTM [04/08/2000].

commodity of small, and ideally, black eggs and salt can sell for as much as $2000 per kilogram. Consequently, each individual Beluga can be worth upwards of $200,000. An important constraint in sturgeon farming is that their 'relatively late sexual maturity makes them particularly vulnerable to over-exploitation'[5]. The Beluga requires 20 years to mature before it can begin to produce roe. Over-exploitation, in the form of over-harvesting and indiscriminate poaching of the sturgeon itself[6], combined with pollution of the Caspian Sea, has seen the official catch dwindle to a meagre fraction of what it was. The decline in the quantity of exportable caviar can be attributed in part to the demise of the USSR and to the rise in economic significance of hydrocarbon reserves.

However, it has been neither the endangered sturgeon nor the demand for caviar that has catapulted the region back into the spotlight of the world's attention. In what may be seen by some to be a striking contrast to the plight of the dwindling number of sturgeon, which can be seen as a barometer of the growing importance of hydrocarbon reserves, the second commodity that has stirred both local and international interest, are the seemingly bountiful hydrocarbon reserves contained in and around the Caspian Sea basin. The region has even entered the realm of pop-culture with the latest James Bond movie – The World is not Enough – using the Caspian basin and its energy reserves, in particular the geopolitics of pipeline direction, as a basis for the film.

These amounts of hydrocarbon reserves, in particular oil, have essentially been promoted from a geopolitical and geostrategic position, from within the region, and from external actors, both political and petroleum in nature. In 1996 Kazakstan released the findings of seismic tests that the Caspian Sea Consortium had conducted in the region that Kazakstan has laid claim to. According to these findings the offshore reserves of the Caspian Sea hold 10 Billion metric tons (70

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[5]Sawfish and 'caviar-fish' pay dearly for their distinction. www.greenpeace.org/~comms/97/bio/cities04.html [13/05/99].

[6] In 1996, a total of 623 people were arrested for poaching sturgeon in the Volga Delta where the Sturgeon spawns. "The Beluga Sturgeon: Caviar in Danger" ibid.

Billion barrels)[7]. If these figures are even remotely true, this would make Kazakstan holder of one of the largest know oil reserves in the world. The United States Energy Information Administration (EIA) has, until recently, consistently stated that there are proven reserves of 16-32 billion barrels within the region, with an additional 163 billion barrels of oil, if they become proven, creating a potential reserve of some 179-195 billion barrels[8]. This figure through journalistic license [sic] is routinely reported as 200 billion barrels[9]. Given that the estimated proven world reserves of crude oil were 1,033 billion barrels in 1999[10], a figure of 200 billion for the Caspian region would seem to justify the attention and intrigue afforded to it. It is because of such grand estimates that Rajan Menon has remarked that 'the Caspian Sea's energy resources are sometimes described with breathless wonderment'[11]. This 'breathless wonderment' has resulted in a race to exploit these valuable reserves.

However, the question that is raised from such assertions is an obvious one: if the Caspian's reserves are actually much smaller than has been widely perceived and promoted, then why the interest from such a variety of countries and multinational oil companies, and what are the implications from this 'interest'. During the first part of the 20th century, the Caspian region was indeed a focus of world interest and highly regarded for its crude oil output, as well as being the birthplace of many advances in the emerging oil industry. However, with the emergence of the larger and more accessible oil fields in the Middle East, and the shift in focus away from the Caspian oil fields within the Soviet economy, the importance of the Caspian as a repository of hydrocarbon reserves was

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[7] Pauline Jones Luong, "Kazakhstan: The Long Term Costs of Short-term Gains" in "Energy Wealth and Development in Central Asia and the Caucasus" *NBR Analysis*, Volume 10, Number 3, (August 1999). p. 34.

[8] "Caspian Sea Region" (December 1998) *United States Energy Information Administration*, at www.eia.doe.gov/cabs/Caspian.html [03/02/99].

[9] cf. Bruce W. Nelan, "The Rush for Caspian Oil", *Time*, (May 4 1998), pp. 36-38.

[10] "Oil" *BP Amoco Statistical review of World Energy 2000* at www.bpamoco.com/worldenergy/oil [05/12/2000].

[11] Rajan Menon, "Treacherous Terrain: The Political and Security Dimensions of Energy Development in the Caspian Sea Zone" *NBR Analysis*, Volume 9, Number 1, (February 1998). p. 7.

significantly reduced, subsequently its importance within the Soviet economy, and in the eyes of the world, returned once again to caviar.

### *The Purpose of This Study*

That the Caspian basin contains significant reserves of oil and gas is not disputed. What is disputed, however, is the exact amount that is actually contained within the various oil and gas fields and from this amount, what is deemed recoverable[12]. Yet, the debate regarding the quantity of the energy reserves is only one aspect of the wider political intrigue. The other more disputed topic concerns the ultimate pipeline route, or routes, that will eventually enable the export of these reserves. The purpose of this paper is to illustrate the implications and subsequent ramifications of the exploitation and extraction of energy reserves from the Caspian basin. It is this work's contention that the ramifications are primarily of a geopolitical and geostrategic nature that have, in the first place, affected the littoral states of the Caspian Sea: Kazakstan, Turkmenistan, Azerbaijan, Iran and the Russian Federation and primarily the first three former Soviet Republics. At a different level, exploitation and extraction have also influenced a number of non-littoral actors that are also actively involved or seeking to be involved in the region. These non-littoral actors include Turkey, Armenia, Georgia, Ukraine, Uzbekistan, Afghanistan, Pakistan, India, China (PRC), Japan, and America. In order to examine these implications this work will provide a general survey of hydrocarbon reserves in the Caspian basin as well as uncovering constraints in the region's hydrocarbon politics throughout both the 19$^{th}$ and 20$^{th}$ centuries. Linkages will be also established between hydrocarbon reserves and infrastructure on the one hand and macro-political pressures on the other.

The littoral actors that are particularly active in seeking to exploit the Caspian reserves are the newly independent states of Kazakstan, Azerbaijan and Turkmenistan. Kazakstan and Azerbaijan are both blessed with significant quantities of oil. Kazakstan's primary fields are Tengiz and Karachaganak,

[12] A discussion on the actual size of the reserves is in Chapter 1.

located in the west of the country, and Azerbaijan's are concentrated in the offshore Azeri-Chirag-Güneshi complex. Turkmenistan is actively developing very large amounts of natural gas at Dauletabad-Donmez[13]. Iran and the Russian Federation, which recently announced it had found oil in 'its sector' of the Caspian Sea[14], also have reserves in their respective zones of the Caspian basin but are more interested in attempting to influence the possible direction of future pipeline networks. In assessing the struggle for control over this region Mozaffari has suggested three dimensions which need to be taken into account. First; who owns the oil, second who participates in its production and third what transportation hurdles need to be overcome for its successful selling to prospective buyers[15].

A striking feature of the race to tap into the Caspian basin energy reserves is that the various multinational petroleum companies have themselves been elevated to a position not known in energy politics since the oil shocks of the 1970s. In the past, oil concessions involved significant state-to-state deliberations, whereas in the Caspian region the role of the competing nation-states has been relegated to that of spectator, as the multinational corporations (MNCs) exercise their independent actor role. Therefore, in discussing the Caspian, it is important to realise that petroleum companies are no longer just mere pawns in the foreign policy prescriptions of political powers. The role of these vertically integrated economic entities, such as Chevron (formerly SOCAL: Standard Oil of California)[17], Royal Dutch/Shell, Unocal, newly merged BP-Amoco, and

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[13] Laurent Ruseckas, "State of the Field Report: Energy and Politics in Central Asia and the Caucasus", *Access Asia* Volume 1, Number 2, (July 1998) at www.accessasia.org/products/aareview/Vol1No2/essay2.html [21/12/98].

[14] "LUKoil has Russia's first Caspian oil discovery" *Press Release* (3 April 2000) at www.findarticles.com/cf_1/m3112/14_98/61693476/print.jhtml [06/12/2000].

[15] Mehdi Mozaffari, "The Oil and Gas of the Caspian Sea: Regional Cooperation and Competition", in Mehdi Mozaffari (ed.). *Security Politics in the Commonwealth of Independent States* (New York: St. Martin's Press, 1997). p. 199.

[16] Graham Evans and Jeffrey Newnham, *Dictionary of International Relations*, (London: Penguin Books, 1998). p. 5.

[17] Chevron recently announced a 100 billion dollar merger with Texaco, which if the merger procedes will make it the largest oil company in the Caspian Basin. see "Chevron and Texaco agree to $100 billion merger creating top-tier integrated energy company", *Press Release* at www.chevron.com/newvs/pressrel/2000/200-10-16html [12/2000].

Russia's LUKoil, in the exploration and extraction of Caspian energy reserves cannot be understated. Richard Matzke, chairman of Chevron Overseas Petroleum said, "In a reversal of history the industry today is showing its potential to drive geopolitical events, rather than be driven by them"[18].

## *Definitions*

It is necessary to establish some boundaries and seek to provide additional information regarding the scope of this work considering the complexity of the subject and length constraints, as well as the primitive state of modern studies concerning the Caspian region. It is because of the 'dearth of empirical studies'[19] and the resulting significant misunderstanding of the region that this work has sought to maintain a sober approach when dealing with conceptual issues. Given the centrality of geopolitics to this work, it is expedient to define the geography of the region under discussion first.

### The Caspian

As a direct result of the focus on energy reserves within the Caspian Sea basin, the term 'Caspian' has emerged as a new geographical designation. The region is not defined on geography, *per se* but rather geology. Ruseckas suggests that if 'one's emphasis is on the production of hydrocarbons, the Caspian region is a vaguely defined subset of Central Asia and the Caucasus'[20]. This use of 'Caspian' essentially is a minimalist approach and almost exclusively refers to Azerbaijan, Kazakstan and Turkmenistan. This ill-defined designation will not be followed in this work. Reference to 'the Caspian' unless otherwise stated, will refer to the Caspian Sea basin, which consists of the riparian regions of the five littoral states of the Caspian.

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[18] Stephen Kinzer, "Caspian Competitors in Race for Power on Sea of Oil" *New York Times on the Web* (24 January 1998) at www.nytimes.com [17/02/1999].

[19] Hoosang Amirahmadi, "Challenges of the Caspian Region", in Hoosang Amirahmadi (ed). *The Caspian Region at a Crossroad*, (New York, St. Martin's Press, 2000). p. 4.

[20] Ruseckas, loc. cit.

## Central Asia

For the purposes of clarity 'Central Asia' in this paper will refer to the classical boundaries described in the nineteenth century[21], and not the current minimalist perception of just five former Soviet Socialist Republics. Although a widely used term, Central Asia, as a region, has never been clearly defined. The classical geographic formulation was made early in the nineteenth century, according to Lawrence Krader, by Alexander Von Humbolt, who 'combined within the area of Central Asia the entire zone from the Caspian to the Hsingan Range in western Manchuria, and from the Altay Mountains to the Himalayas'[22].

Central Asia as a region, and the Caspian basin in general, is a complex matrix of inter-connected cultural, linguistic and religious peoples and any effective study must at least give credit to these relationships in attempting to provide an analysis. Accordingly, Afghanistan and the Xinjiang Uygur Autonomous province in Western China, along with Kazakstan, Uzbekistan, Turkmenistan, Tajikistan, and the Kyrgyz Republic, in this thesis, will be referred to as Central Asia, with the last five collectively referred as the Central Asian Republics (CAR). It is also important to remember, when discussing geographical associations, that Kazakstan, in both Russian and Soviet terminology, was not viewed as a part of *Srednyaya Aziya* (Middle [Central] Asia)[23]. This exclusion was primarily made because of the sizeable ethnic Russian population, currently some six million, that are resident in the northern Kazakstan oblasts that border the Russian Federation[24]. As Alexandrov mentions, the earliest Russian settlements, in what is present day Kazakstan, began as early as 1560[25]. So from an historical Russian perspective the region 'belonged' to them.

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[21] Gerald Morgan, *Anglo-Russian Rivalry in Central Asia: 1810-1895*, (London: Frank Cass, 1981). p. XV.

[22] Lawrence Krader, *Peoples of Central Asia*, (Bloomington: Indiana University Press, 1962). p.1.

[23] Anthony Hyman, "Central Asia and The Middle East: The Emerging Links", in Mohiaddin Mesbahi (ed.) *Central Asia and the Caucasus after the Soviet Union: Domestic and International Dynamics,* (Gainesville: University Press of Florida, 1994). p. 249.

[24] Martha Brill Olcott, *The Kazakhs (2nd Edition)*, (Stanford: Hoover Institution Press, 1995). p. 293.

[25] Mikhail Alexandrov, "Russian migration to Kazakstan", *Russian and Euro-Asian Bulletin*, (June 1996) at www.cerc.unimelb.edu.au/bulletin/buljun.htm [10/01/2000].

## The Caucasus

Similarly, by definition, Azerbaijan in the Caucasus, which is often mentioned by ignorant and ill-informed writers and commentators as being 'Central Asian' is excluded from this definition of Central Asia. Armenia and Georgia, along with Azerbaijan, are the three republics that form what are 'the Caucasus'. It is erroneous to classify Azerbaijan as 'Central Asian' simply because it is: a) now independent, and b), the majority of its population are Muslim, whereas Georgia and Armenia have predominantly Orthodox Christian populations[26]. If this approach is followed, then what of the Tatars and Bashkirs, and other ethnic groups outside of Central Asia, like Azerbaijan, and who also contain a majority that view themselves as Islamic ? Sweeping generalisations such as this only serve to obfuscate an already complex discussion.

## Northern Caucasus

The region immediately to the north of the Caucasus, in the southern Russian Federation, is home to several autonomous *oblasts* (districts) and republics, including Chechnya, Dagestan and Kalmykia. This region is collectively referred to as the Northern Caucasus. It is important to stress that the Northern Caucasus region, which also borders the Caspian Sea, is a region of utmost significance for the Russian Federation in terms of pipeline routes, and has been the home of various irredentist movements before and after 1991.

## Spelling and other conventions

Translation and transliteration always present difficulties. The substitution of letters in one alphabet for those in another is an exercise that is often fraught with danger. Central Asia and the Caucasus presents the added problem of textual sources that are often found in Arabic, Latin, Chinese and Cyrillic. This coupled with a wave of name changes in the post-Soviet space may confuse the reader even more. Throughout this work the following principles will be used in the interest of simplicity; References to proper names will follow the current library of Congress system, except where citing a particular source that has used a

[26] These countries however represent two different traditions of Orthodox Christianity.

different convention. For example, the spelling of Kazakstan without 'h' will be used (this is the policy promoted by the Kazak government). References to various governments/agencies/administrations will be to the titular nationality. For example; instead of the 'Kazakstani government', the citation will be to the 'Kazak government'. In situations where names have changed, such as Frunze to Bishkek, the original name will appear in parenthesis immediately following the current name when first mentioned. Foreign words of importance will appear in italics, and in spelling Arabic, Persian and Turkish/Turkic words this thesis will follow the system used by the *International Journal of Middle East Studies*. In selecting the use of the term 'actor', reference is primarily being made to nation-states. Use of the term 'actor' also refers to any 'entity that plays an identifiable role in international relations'[27].

## This sub-thesis will consist of four chapters

The first chapter: Precious Commodities - provides a conceptual foundation for seeking to address this topic through a geopolitical and geostrategic prism, as well as providing commentary on the vexed issue of the size of the Caspian energy reserves and the various stages of world interest in the region. The second chapter: Geological, Environmental and Legal Reality - What is the Caspian ? - will describe what the Caspian Sea physically is, and will in turn provide a platform for the ensuring legal discussion of whether the Caspian is a sea or a lake and the importance of this to the current hydrocarbon debate. As well as seeking to provide a geological survey of the Caspian Sea an examination of environmental concerns will be explored and its relationship to both hydrocarbon reserves and the legal status of the Caspian Sea.

The third chapter: The Central Importance of Oil, will provide an historical overview of energy reserves in the Caspian basin. This will enable a brief mention of the importance of these reserves to Tsarist Russian and the Soviet Union as well as providing commentary on soviet impediments to technological advances in exploration. The fourth chapter will identify the implications and

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[27] Graham Evans and Jeffrey Newnham, *Dictionary of International Relations*, (London: Penguin Books, 1998). p. 5.

ramifications, both short-term and long-term, from the exploitation and extraction of energy reserves upon the Caspian littoral states. This analysis will be based on the discussion of the preceding chapters.


**The Caspian Sea and its immediate littoral region**[28]

[28] Selected section from National Geographical Map *Caspian Region Promise and Peril* (National Geographic Society: Washington, 1999).

# Chapter One

## Why the Interest in the Caspian Basin ?

To the novice, the reason for the interest in the Caspian basin are the significant energy reserves waiting to be properly exploited. Whilst it is quite correct to realise the importance of the hydrocarbon based energy reserves in the region, it would be erroneous to focus only on this element, even though the Tengiz field in western Kazakstan is reputed to be the largest oil field to be discovered anywhere in the world since the 1970s[1]. The reserves themselves are, as mentioned earlier, but one aspect and, according to this thesis, are not the exclusive over-arching 'prize' that various actors are seeking to win. It is the contention of this thesis that the real prize are the transportation routes that will be used to enable the delivery of these reserves to regional and world markets. In particular, which directions these transportation routes will go, and of equal importance, where they don't, or in the case of possible routes via the Islamic Republic of Iran, where they are not allowed to go.

The winners will be those actors who control access to the potential pipeline routes, those that are able to charge transit fees, and those actors whose product is ultimately exported. This is why there are geopolitical and geostrategic implications in the exploitation and extraction of Caspian basin energy reserves. This determinant distinguishes the Caspian from other energy basins, such as the Persian Gulf, and in part helps explain why, for the Caspian region, export routes are initially far more important than the actual reserves. This is not to suggest, however, that these two issues are mutually exclusive, for they most certainly are not. The issue of reserves and export routes are interconnected in several ways. Obviously commercial reasons do dictate to the immediate viability of exploration, and if hydrocarbons are found, these need to be of sufficient quantity to justify further expense in extraction. The question that has been asked is whether there are enough reserves to justify the expense, and the trouble is no-one can seem to agree how much there is.

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[1] Rosemarie Forsythe, *The Politics of Oil in the Caucasus and Central Asia*, (London: Oxford University Press, 1996). p. 37.

### *How much is there ?*

As mentioned previously the exact amount of oil in the Caspian, proven, yet to be proven and YTF (Yet-to-find), has generally been reported at around 200 billion barrels, equivalent to the combined reserves of Kuwait and the United Arab Emirates. If this figure is correct than the Caspian is the second largest field outside the Arabian peninsula, yet still is behind Saudi Arabia which has proven reserves in excess of 260 billion barrels[2]. However this figure, of 200 billion, is the product of pure speculation, and geopolitical fanfare. Terry Adams, former president of the Azerbaijan International Oil Company (AIOC), has said that the YTF figure, is both flawed and commercially meaningless. The figure, according to Adams, reflects 'the concept of an Ultimate Reserve, in which oil would fill every conceivable trap, with no exploration risk'[3]. This overly optimistic assessment is in contrast to the view held during Soviet times that the Caspian oil fields, especially around Baku, were widely perceived as approaching exhaustion[4]. Obviously both assessments cannot be correct, but they can both be wrong. In oil exploration, as in many risk based ventures, it is wise to err on the side of conservatism, and this thesis agrees.

The term 'reserves', according to Colin Campbell, 'refers to prudent estimates of what remains to be produced from known fields at that time and does not include amounts left to discover in new fields'[5]. According to Ebneyousef, the proven oil reserves of the south Caspian basin exceed those of the North Sea[6]. The North Sea countries (Norway and Scotland/United Kingdom) between them

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[2] Amy Meyers Jaffe and Robert A. Manning, "The Myth of the Caspian 'Great Game': The Real Geopolitics of Energy" *Survival*, Volume 40, Number 4, (Winter 1998-1999). p. 114.

[3] Terry Adams, "Caspian Hydrocarbons, the Politicisation of Regional Pipelines, and the Destabilisation of the Caucasus" *Caucasian Regional Studies*, Volume 5 Issue 1 & 2 at www.ceps.be/Pubs/Caucasus/adams.htm [11/08/2000].

[4] Geoffrey Jukes, *The Soviet Union in Asia*, (Sydney: Angus and Robertson/ Australian Institute of International Affairs, 1973). p. 33.

[5] Colin J. Campbell, "Letter to the Editor (of Foreign Affairs)" (8 January 2000) at www.oilcrisis.com/campbell/foreignaffairs200001.htm [07/08/2000]. In this letter Campbell rebuts an article by Jaffe and Manning "The Shocks of a World of Cheap Oil".

[6] Hossein Ebneyousef, "Caspian Oil and Gas Development: Situation and Prospects", in *Silk Road*, Volume One, Number One (October 1997). p. 10.

contain estimated proven reserves of 16 billion barrels[7]. Australia by comparison has proven reserves of 2.9 billion barrels[8].

Nevertheless, although the Caspian is not another Saudi Arabia, or Kuwait, the proven hydrocarbon reserves are still significant, at the very least for internal and regional consumption, whilst the possible reserves are quite simply astounding, if they are to be believed. The modest increases in proven reserves, as the following tables clearly demonstrate, should be taken into consideration when comparing the increases in unproven/YTF quantity. These unproven amounts according to the EIA have risen 60 billion barrels in three years. The proven reserves are what matters when it comes to exploitation. It should also be noted that whilst the Caspian is a modest field, when compared with the Middle East, some of the hydrocarbon actors actively involved in the region are not. In particular LUKoil, the Major Russian Oil Company that recently acquired Getty Petroleum in the US[9] has proven reserves of some 23 Billion Barrels under its control, of which over 60 percent are concentrated in West Siberia[10]. Chevron is also another extremely significant actor. One of the original Seven Sisters[11], Chevron has already consumed another sister (Gulf), and is in the process of merging with Texaco, yet another original sister. If actors such as these are involved then it is difficult to believe that the amounts in question are not commercially viable, irrespective of the price of crude oil.

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[7] "Oil", *BP Amoco Statistical review of World Energy 2000* at www.bpamoco.com/worldenergy/oil [05/12/2000].

[8] ibid.

[9] "LUKoil to Acquire Getty in First Acquisition of Publicly Held US Company by a Russian Corporation" *Press Release*, (3 November, 2000), via LUKoil email list.

[10] "OAO LUKoil has total reserves of 23 billion barrels of oil and 6.6 trillion cubic feet of gas" *Press Release,* (29 August, 2000), via LUKoil email list.

[11] The Seven Sisters were the original oil companies that developed the Iranian and Arabian oil fields; Exxon (Esso), Royal Dutch/Shell, BP, Gulf, Texaco, Mobil and Socal (Chevron). The French firm Elf is often mentioned as the eighth sister. Exxon, Mobil and Chevron are from the original Rockefeller Standard Oil Group. There are only four sisters left; BP, recently merged with Amoco, Mobil and Exxon recently merged, Chevron seeking to merge with Texaco and the stand alone Royal Dutch/Shell. See Anthony Sampson, *The Seven Sisters (New Edition)* (Sevenoaks: Hodder and Stoughton, 1993).

**Table 1.1** ***Selected Caspian Oil and Gas Reserves Proven and Possible (1992)***[12]

| | **Proven Oil*** | Possible Oil* | Total Oil* | Proven Gas** | Possible Gas** | Total Gas** |
|---|---|---|---|---|---|---|
| Azerbaijan | **1.2** | 4 | 5.2 | 19 | 19 | 38 |
| Kazakstan | **3.3** | 12 | 15.3 | 15 | 35 | 60 |
| Turkmenistan | **1.4** | 3 | 4.4 | 189 | 175 | 364 |
| **Total** | **5.9** | **19** | **24.9** | **223** | **229** | **452** |

* billion barrels

** trillion cubic feet

**Table 1.2** ***Caspian Oil and Gas Reserves Proven and Possible (1997)***[13]

| | Proven Oil* | Possible Oil* | Total Oil* | Proven Gas** | Possible Gas** | Total Gas** |
|---|---|---|---|---|---|---|
| Azerbaijan | **3.6-11** | 27.0 | 31-38 | 11 | 35 | 46 |
| Russia | **0.2** | 5.0 | 5.2 | N/A | N/A | N/A |
| Kazakstan | **10-16** | 85 | 95-101 | 53-83 | 88 | 141-171 |
| Turkmenistan | **1.5** | 32.0 | 33.5 | 98-155 | 159 | 257-314 |
| Iran | **0** | 12.0 | 12.0 | 0 | 11 | 11 |
| **TOTAL** | **15.1-28.7** | **161** | **176-189** | **162-249** | **293** | **455-542** |

* billion barrels

** trillion cubic feet

[12] "Petroleum in the Muslim Republics of the CIS: More Oil for OPEC ?", cited in John Roberts, *Caspian Pipelines* (London: Royal Institute of International Affairs, 1996). p. 4.

[13] Figures from 'Table 1: Caspian Oil and Gas Resources' (amended), Rajan Menon, "Central Asia's Foreign Policy and Security Challenges: Implications for the United States" *NBR Analysis* Volume 6, Number 4 (1995). p. 11. These figures originated with the US Energy Administration Country Analysis Brief: Caspian Sea Region, October 1997.

**Table 1.3** *Caspian Oil and Gas Reserves Proven and Possible (2000)*[14]

| | **Proven Oil*** | Possible Oil* | Total Oil** | Proven Gas** | Possible Gas** | Total Gas** |
|---|---|---|---|---|---|---|
| Azerbaijan | **3.6-12.5** | 32 | 36-45 | 11 | 35 | 46 |
| Russia | **2.7** | 14 | 17 | N/A | N/A | N/A |
| Kazakstan | **10.0-17.6** | 92 | 102-110 | 53-83 | 88 | 141-171 |
| Turkmenistan | **1.7** | 80 | 82 | 98-155 | 159 | 257-314 |
| Iran | **0.1** | 15 | 15 | 0 | 11 | 11 |
| **Total** | **18.1-34.6** | **233** | **251-268** | **162-249** | **293** | **455-542** |

* billion barrels

** trillion cubic feet

**Table 1.4** *Caspian Proven Oil Reserves (Thousand Millions)*[15]

| | **At end 1979 barrels** | **At end 1989 barrels** | **At end 1999 barrels** | **At end 1999 tonnes** | **At end 1999 World Total** |
|---|---|---|---|---|---|
| Azerbaijan | **N/A** | N/A | **7.0** | 1.0 | 0.7% |
| Russian Federation | **N/A** | N/A | **48.6** | 6.7 | 4.7% |
| Kazakstan | **N/A** | N/A | **8.0** | 1.1 | 0.8% |
| Turkmenistan | **N/A** | N/A | **0.5** | 0.1 | † |
| Uzbekistan | **N/A** | N/A | **0.6** | 0.1 | † |
| Other FSU | **N/A** | N/A | **0.7** | 0.1 | 0.1% |
| **Total FSU** | **67.0** | **58.4** | **65.4** | **9.0** | **6.3%** |

† less than 0.05 percent

[14] "Caspian Tables, Maps" (June 2000) *United States Energy Information Administration* at www.eia.doe.gov/emeu/cabs/caspian.html [05/12/2000].

[15] "Oil", loc. cit.

**Table 1.5** *Middle East Proven Oil Reserves (Thousand Million)*[16]

| | At end 1979 barrels | At end 1989 barrels | At end 1999 barrels | At end 1999 tonnes | At end 1999 World Total |
|---|---|---|---|---|---|
| Iran | **58.0** | 92.9 | 89.7 | 12.3 | 8.7% |
| Iraq | **31.0** | 100.0 | 112.5 | 15.1 | 10.9% |
| Kuwait | **68.5** | 97.1 | 96.5 | 13.3 | 9.3% |
| Oman | **2.4** | 4.3 | 5.3 | 0.7 | 0.5% |
| Qatar | **3.8** | 4.5 | 3.7 | 0.5 | 0.4% |
| Saudi Arabia | **166.5** | 257.6 | 263.5 | 36.0 | 25.5% |
| Syria | **2.0** | 1.7 | 2.5 | 0.4 | 0.3% |
| United Arab Emirates | **29.4** | 98.1 | 97.8 | 12.6 | 9.4% |
| Yemen | – | 4.0 | 4.0 | 0.5 | 0.4% |
| Other Middle East | **0.2** | 0.1 | 0.1 | † | † |
| **Total Middle East** | **361.8** | **660.3** | **675.7** | **91.5** | **65.4%** |

† less than 0.05 percent

### *Ties that Bind*

The diverse Newly Independent States (NIS) in the Caspian region are not stand-alone actors capable of independently achieving the desired outcomes from their promising of the energy sector/s. They are dependent on both external and regional support to achieve their individual aims. They need outside capital investment to develop their hydrocarbon reserves, and they need access to pipelines and transport corridors to export these reserves. Partly as a result of the processes involved in the actual formation of the various republics in the 1920s, as well as having similar social and political pressures, these regional actors are tied to each other. The fragmentation of the Soviet Union turned 'inter-republic economic dependence into international dependence and interdependence among

[16] ibid.

independent sovereign states'[17]. As Olcott mentions, 'the region is heavily connected, and problems in one state easily spread to another...Trans-Caspian ties are rapidly growing stronger'[18]. Some of these problems Olcott alludes to are conflict-based, and Central Asia and the Caucasus, as a region, is replete with examples of confrontation that has affected neighbouring states.

There are other concerns that are shared by these actors besides that of regional conflict and instability. Social and economic problems are increasing as the anticipated wealth from the energy reserves has not been as readily forthcoming as was originally expected. As a result the overall health of some of the region's economies has been decreasing, amidst fears that with growing dependence on the sizeable energy reserves, they are showing signs of 'Dutch Disease'[19]. This fear of Dutch Disease is because of the very public stance that a number of key actors in the region have taken regarding reliance on energy reserves as the sole, or major source of revenue.

The conflict-based issues have already had an impact on transportation routes, as the conflicts in both Afghanistan and Chechnya readily demonstrate. The continuing conflict in Afghanistan has had a significant impact, especially for Turkmenistan, in regards to its plans to export gas to the burgeoning South Asian economies. The conflict in Chechnya has highlighted the impact that a localised conflict will have on non-contiguous actors like Azerbaijan who are reliant on pipelines that traverse these zones of conflict. Unrest in one state is very likely to impact on another, particularly if the conflict affects the transport corridor for oil and gas reserves. This, as Olcott correctly ascertains, will have 'serious

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[17] Zhuangzhi Sun, "Central Asia's Transition to a Market Economy: An Analytical Comparison with China", in Yongjin Zhang, and Rouben Azizian, (Eds.). *Ethnic Challenges Beyond Borders: Chinese and Russian Perspectives of the Central Asian Conundrum* (London: Macmillian Press, 1998). p. 158.

[18] Martha Brill Olcott, "Pipelines and Pipe Dreams: Energy Development and Caspian Society", *Journal of International Affairs*, Volume 53, Number 1, (Fall, 1999), p. 306.

[19] 'Dutch Disease', an economic term, refers to the situation where there is serious disruption in the secondary sectors of the economy, invariably but not always agriculture and manufacturing, as a result of relying on the benefits of petroleum related activities. The term originates from the economic syndrome that plagued the Netherlands' economy during the 1960s and the 1970s when the Dutch neglected their manufacturing sector and relied too heavily on the oil and gas income to support high cost social services.

potential implications for the development of oil and gas in landlocked countries'[20]. As Heslin clearly states, 'most pipeline routes from the Caspian region are affected by actual or latent conflict situations'[21]. Without a safe and reliable corridor for the export of oil and gas, the size and the quality of the reserves are of little benefit except for domestic consumption. The continuing impasse regarding the unresolved legal status of the Caspian Sea is another example of the inter-connectivity of the NIS within Central Asia and the Caucasus, as it affects not only possible Trans-Caspian pipeline development, but also prospects of the validity of sovereignty pertaining to energy reserve fields.

It is only through examining the manifold influences on pipeline development and energy reserve exploration, that a clearer understanding of the significance of the Caspian basin and the importance of the region to local and international relations and world politics will emerge. Some commentators, such as Brzezinski, believe that,

> Whoever controls or dominates access to the region is the one most likely to win the geopolitical and economic prize. It is this consideration that has made the pipeline issue so central to the future of the Caspian basin and Central Asia[22].

It would seem that Brzezinski is correct, especially when consideration is given to the task of exploration in a remote (and disputed) inland body of water, such as the Caspian Sea. Access is not just about extraction of energy reserves it is about gaining entry into the region as well.

Whilst issues relating to transportation of energy reserves have been mentioned, the issue of transportation into the region for exploration is also a factor.

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[20] Olcott (1999), op. cit., p. 320.

[21] Shelia N. Heslin, "Key Constraints to Pipeline Development: Status, Significance and Outlook", *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper*, James A. Baker III Institute for Public Policy (April 1998) at www.riceinfor.rice.edu/projects/baker/publications/efcac2.html [28/12/98].

[22] Zbigniew Brzezinski, *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997). p. 140.

Exploration of possible fields within the Caspian Sea itself requires the use of semi-submersible off-shore drilling platforms. Transportation, in this case the conveyance of offshore drilling rigs into the region, presents a major hurdle to long-term development of the Caspian energy sector. For all the fanfare of major investment there are only two assembly yards on the Caspian Sea equipped to either manufacture or refurbish offshore drilling rigs. One is in the north at Astrakhan, and the other is in Primorsk near Baku. In order for offshore rigs to reach the Caspian from any location, they must be firstly cut apart, floated down the Volga and then rebuilt. As Soligo and Jaffe attest, the geography of the region plays a large role in the limitations in off-shore exploration[23]. According to Offshore Rig Locator, there are currently six rigs active in the Caspian out of a total world-wide fleet of 140 active rigs[24]. However upon further investigation, it would appear that from this group only two are able to meet international drilling standards for safety and efficiency[25].

### *The Stages of Interest in Caspian Energy Reserves*

Initially the interest was in the sheer magnitude of the amount of oil and gas that was perceived to be contained within the region. The initial interest however, quickly evolved to embrace the issue of transportation of the oil and gas to possible markets. This corollary naturally resulted in geopolitical and

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[23] Ronald Soligo and Amy Myers Jaffe, "The Economics of Pipeline Routes: The Conundrum of Oil Exports from the Caspian Basin", *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper*, James A. Baker III Institute for Public Policy (April, 1998) at www.riceinfo.rice.edu/projects/baker/publications/pipelines.html [21/12/98].

[24] Offshore Rig Locator cited in "Semi-Submersibles", *World Oil*, (December 1999) at www.findarticles.com/cf_0/m3159/12_220/60004638/print.html [18/09/2000].

[25] Dean E. Gaddy, "Rig Clubs help alleviate Caspian Sea drilling Shortage" *Oil and Gas Journal* November 8, 1999 at www.findarticles.com/cf_0/m3115/45_9757888215/print.html [14/09/2000].

geostrategic predictions of the region being a new 'Great Game'[26]. While the attraction of the riches that are to be found in the region may have periodically waned to outside observers and interests, it is important to remember that the politics of this region has continued to be of vital strategic interest to the Russian Federation, and of course to the nation-states of the Caspian basin themselves. This association with the 'Great Game' merely serves to provide a forum for an outdated *cliché* and seeks to dis-empower the nation-states of the region.

The interest in the region and its energy reserves, has occurred, thus far, in three distinct stages. The first was in 1990, when it was revealed that Mikhail Gorbachev had secretly instigated negotiations with the United States oil company Chevron to develop the giant Tengiz oil field in Western Kazakstan[27]. However it was to take several years before the actual specifics of the project were agreed upon. Only at the end of the very end of the negotiations was Nursultan Nazarbaev, then First Secretary of the Kazak Communist Party, who later became President of the independent Kazakstan, made aware of the deal. It was not until June 1991 that Moscow finally ceded control of Kazakstan's mineral resources to Alma-Ata (Almaty)[28].

The second stage was ushered in by the large scale investment in the region, most notably in Azerbaijan, from a host of MNCs. Turkmenistan also was successful in securing foreign investment, by 1994 more than 280 joint-venture agreements for hydrocarbon exploration totalling some 3 Billion dollars had been signed[29]. Negotiations for the largest singular investment project in the region,

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[26] The 'Great Game' refers to the period in the nineteenth century when England and Russia sought to out manoeuvre each other in the broader Central Asian region. Even though each sought to defend its territory by expansion, it was widely perceived by many to be the 'Great Game' for world domination. Some have suggested that the term 'Great Game' itself comes from the novel *'Kim'* (originally written in 1901). *Kim* tells the story of Kimball O'Hara (Kim) who was recruited into the British Secret Service and as a result the reader is introduced to the 'Great Game'. See Rudyard Kipling *Kim* (Hertfordshire: Wordsworth Classics, 1993). Others such as Morgan cite that the use first appeared in around 1840. Gerald Morgan, *Anglo-Russian Rivalry in Central Asia: 1810-1895*, (London: Frank Cass, 1981). pp. 15-16. Nevertheless the term is associated in the main with Kipling.

[27] Martha Brill Olcott, *The Kazakhs (2nd Edition)*, (Stanford: Hoover Institution Press, 1995). p. 267.

[28] ibid.

[29] Sun, ibid. p. 159.

the Azerbaijan International Oil Company (AIOC), began in 1991, it was not until September 1994 however, that agreement on consortium members of the AIOC and share allocations was finally reached. The investment and involvement in the AIOC came from both major and minor operators such as British Petroleum (BP)[30], Amoco, Unocal, Pennzoil, Exxon, Itcchu (Japan), Delta-Nmir (Saudi-US), TPAQ (Turkey), Statoil (Norway), Ramco (Scotland) and importantly Russia's major oil company – LUKoil, as well as the State Oil Company of Azerbaijan (SOCAR)[31]. The specifics of these negotiations, that were finalised in 1994, resulted in an estimated 8 Billion dollars of capital investment being committed to the development of the Azeri oil industry[32]. As with a number of proposals regarding oil and gas exploration in Central Asia and the Caucasus political intrigue preceded, and followed, these negotiations.

Prior to the signing off on this contract there was a 'bloodless' *coup d'état* in July 1993 that saw the then anti-Russian, and nationalist President of Azerbaijan, Abulfaz Elchibey, deposed just as he was to sign off on the then current AIOC project with oil companies that did not include Russian interests[33]. The new President, Heydar Aliyev, was perceived to be more supportive of Russian interests in the region. Shortly after the signing of the 'Deal of the Century'[34] as it subsequently became known, the simmering Chechen conflict erupted into a full-scale secessionist war, when Boris Yeltsin, then President of the Russian Federation, ordered military 'intervention' on 11 December 1994. This conflict, and that the Baku-Novorossiysk oil pipeline passes directly through Grozny, capital of irrendentist Chechnya is no coincidence when considering the geopolitical intrigue surrounding pipeline politics. That conflict (1994-1996), and the current one in Chechnya (1999-2000), are salient examples of the importance of pipeline transportation routes. Some, such as John Roberts,

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[30] At this stage BP and Amoco had not merged and are accordingly at this stage treated as separate entities.

[31] Mehdi Parvizi Amineh, *Towards the Control of Oil Resources in the Caspian Region.* (Hamburg: Lit Verlag, 1999). pp. 170-174.

[32] Forsythe, op. cit., p. 39.

[33] ibid., p. 15.

[34] The origins for this title are varied and is also referred to as the "Contract of the Century".

postulate that this conflict has more to do with 'nationalism, relations between the centre and periphery in the Russian Federation and the specific circumstances of Chechenia itself'[35] than with the importance of Grozny itself as a conduit for oil. Whilst the reasons Roberts cites are notable, one cannot downplay the importance of pipeline routes as a significant factor in Russian military engagement.

The third, and current phase of interest, from mid-1997 onwards, has unfolded as a result of the formulation of a specific American policy towards Central Asia and the Caucasus during the Clinton administration. Before this, a comprehensive American stance towards the region, and in particular its energy reserves, was severely lacking. For a number of reasons there was no all-embracing document describing clear-cut US objectives. There were only three issues that originally preoccupied the US in the region. The removal of thermonuclear weapons (affecting Kazakstan), Clause 907 of the Freedom Support Act[36] relating to restriction of all forms of aid to Azerbaijan (because of its conflict with neighbouring Armenia), and the policy of 'dual containment' towards Iran and Iraq. American policy makers took the view that the region was in the almost exclusive orbit of the Russian Federation. In spite of the fact that it appeared that America was not interested in the region, in terms of geopolitical and geostrategic imperatives, US embassies appeared in all of the region's capital cities within the first year after the fragmentation of the USSR.

These three phases of interest also coincide with peaks in published academic works and conferences pertaining to the wider Central Asian region[37]. It comes as no surprise that the focus of academic attention has perspicaciously shifted towards the rising importance of the geopolitical and geostrategic implications of

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[35] John Roberts, *Caspian Pipelines*, (London: Royal Institute of International Affairs, 1996). p. 21.

[36] Freedom Support Act, the full and correct title is *Russian and Emerging Eurasian Democracies and Open Markets Support Act.* Section 907 specifically prohibits US aid to Azerbaijan with the exception of nonproliferation and disarmament assistance. The removal of clause 907 is linked to the end of hostilities between Armenia and Azerbaijan over territorial issues such as Nagorno-Karabakh.

[37] A cursory reading of the bibliography indicates the increase in academic output during these periods.

the Caspian basin energy reserves. Prior to the advent of energy politics, discussion on the region tended to focus on three main themes: the perceived rise of Islamic fundamentalism, the use of ethno-nationalism as an avenue for potential hostilities, and the various discussions on the emergence, or lack thereof, of democratic institutions[38]. These important themes naturally still exist, but they have now been superimposed within the framework of energy geopolitics.

### *Justification*

This thesis adopts an approach whereby the Caspian Region will be examined through the dual prism of geopolitics and geostrategy. In doing so an attempt will be made to provide an analysis that may be useful in assessing both littoral and non-littoral actors as well as the role of MNCs in exploiting the energy reserves and the impact that this exploitation will have on the region. A number of actors are often overlooked when discussing Caspian energy politics. These actors include Ukraine, China (PRC), India, and East Asia in general. The role of Ukraine is important as it seeks to reduce its dependence on Russian energy supplies by tapping into Caspian energy reserves. The growing significance of the PRC and its influence in the region has received scant attention, as has the rising demand in India and East Asia for petroleum products to sustain economic growth.

A factor in the current commentary for not examining these regions, as well as pipeline route options, can be attributed to the preponderance of the US governments insistence on its preferred direction of pipeline/s routes. The US position, under the Clinton Administration, is strongly supportive of an east-west route, that by-passes Iran. This thesis asserts that the direction that the US is promoting is driven by its own myopic assessments of the region. Because of this, the US is dictating a direction that seeks to only serve its newly found

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38 For a very good discussion on the problems associated with Democratisation in the CAR and the Caucasus see Karen Darwisha and Bruce Parrot (eds.)., *Conflict, Cleavage, and Change in Central Asia and the Caucasus* (Cambridge: Cambridge University Press, 1997).

immediate purpose and, when assessed critically, is found to be lacking, as well as going in a direction that impacts negatively on the political stability of the Caspian region. As will be discussed further, a direction that has more beneficial rewards for the exporting states; Azerbaijan, Kazakstan and Turkmenistan, is west-east and south towards India and China, via Iran and/or Afghanistan, not west to Europe via Turkey, either through the Bosphorus, or via Yumurtalik, the exit port for the proposed Baku-Ceyhan pipeline.

### *Geopolitics*

As Ó Tuathail and Agnew succinctly state 'Geopolitics, as many have noted, is a term which is notoriously difficult to define'[39]. As such any attempt to adequately define geopolitics is akin to attempting to define what democracy is, and given the variety of democracy prevalent in the CAR and the Caucasus this would provide several conflicting versions to the Western European tradition. Robertson has suggested 'Democracy is the most valued and perhaps the vaguest of political concepts in the modern world'[40]. Democracy as a concept and in practice has however, certainly existed far longer than geopolitics. In seeking to examine the Caspian region through the framework of geopolitics, Graham Fuller has suggested that 'for anyone interested in geopolitics, the Caspian may present itself as the ultimate challenge'[41]. The reason for it being the ultimate challenge in geopolitics are the copious number of variables, as well as the number of actors involved.

Geopolitics, when reduced to its base level, is primarily a method of foreign policy analysis that rests on the physical geography of the actors involved, and how this geography correlate to politics. It is about the relationship between geography and politics, a relationship that is dynamic. Yet it is much more than

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[39] Gearóid Ó Tuanthail and John Agnew, "Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy", in Gearóid Ó Tuanthail et. al. (eds.) *The Geopolitics Reader*, (London; Routledge, 1998). p. 79.

[40] David Robertson, *Dictionary of Politics 2nd Edition* (London: Penguin Books, 1993). p. 129.

[41] Graham Fuller, "Geopolitical Dynamics of the Caspian Region" *Caspian Crossroads Magazine*, Volume 3, Number 2, (Fall, 1997) at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/1998].

this, it is also a 'foil to idealism, ideology and human will'[42]. According to Sloan and Gray;

> One of the aims of geopolitics is to emphasise that political predominance is a question not just of having power in the sense of human or material resources, but also of the geographical context within which that power is exercised[43].

This is confirmed when a careful examination of the Caspian is undertaken. It is not just the political will or intellect of the leaders of the various actors involved that has thus far determined the course of events in the region. It is also the natural environment and the geography of the region that has exercised an inordinate amount of leverage in the machinations of the political web of energy reserve exploitation.

A brief word is required refuting the notion that the validity of geopolitics as a methodology for foreign policy interpretation has become redundant due to the apparently more encompassing notion of geo-economics, the globalising effect of Information Technology, and globalisation in general. Granted there are a growing number of examples of fortunes being made which are not restricted to the confirms of geography, however the logic of suggesting geographical location is now no longer important is severely flawed. Whilst it may be true that economic power can be far superior to political power in given situations, it is erroneous to discard the geographical impact that a nation-state's position may have in regards to policy formulation simply because of the advent of the Internet and globalisation, or that it might be 'the end of history'. In a similar vein, the dramatic rise of new technology based industries fuelled the myth that old world stocks, shares and companies are *passé*. The corollary argument is often used with the increased use of non-fossil fuels in transport, and that the petroleum industry is declining in importance. However, the near 40 percent write-off on the NASDAQ in 2000, should remind stock market bulls and some analysts of

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[42] Ó Tuanthail and Agnew, loc. cit.

[43] Geoffrey Sloan and Colin S. Gray, "Why Geopolitics" *The Journal of Strategic Studies*, Volume 22, Number 2/3, (June-September, 1999), p. 2.

the importance of old world companies. This is especially so given the fact that energy generation for world industry, apart from a number of localised exceptions that rely on thermo-nuclear energy, is heavily dependent upon fossil fuels. The information society, as Dalby rightly mentions,

> still depends upon fuel supplies to run the vehicles and to provide electrical power for the computers and the telephone exchanges. Oil supplies from Saudi Arabia or elsewhere in the Middle East are still essential to the economies of the post-industrial world.[44]

The post-industrial and emerging industrial world, in particular South Asia, still require these reserves for use as a primary source for energy generation. The ability of the various actors in Central Asia and the Caucasus to exploit their oil and gas reserves is very much dependent upon their respective geographical locations. As a result of this dependence, geopolitics will continue to remain a viable consideration in foreign policy analysis of these actors.

The concept of political geography remains a critical consideration in international affairs[45] and it follows that a failure to utilise this knowledge will weaken the position of an actor. Those actors, political and petroleum based, seeking to exploit Caspian basin energy reserves face a unique situation. In order to transport the oil and/or gas whichever direction they pursue will involve negotiation with another actor/s to either use their facilities and infrastructure and/or solicit permission to build a pipeline across their sovereign territory to enable transportation to markets. A further geographical-cum-legal obstacle is the unresolved legal status of the Caspian Sea which directly impacts on both exploration and transportation options. These problems completely differentiate the Caspian from the Persian Gulf, a region that has ready access to open waters albeit through one of the major chock-points: The Strait of Hormuz and minimal territorial legal differences. Although some Gulf countries do have additional

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[44] Simon Dalby, "Geopolitics, Knowledge and Power at the End of the Century", in Gearóid Ó Tuanthail et. al. (eds.) *The Geopolitics Reader*, (London; Routledge, 1998). p. 308.

[45] Brzezinski, op. cit., p. 37.

pipelines crossing neighbouring states, it needs to be stated that the main export route is not via another country, as is the case in the Caspian basin. The only major exception to the rule is Iraq which has export pipelines extending through other countries, most notably, as far as this study is concerned, through Turkey to Ceyhan. A pipeline that has essentially remained dormant due to UN sanctions. The future development of Caspian basin hydrocarbon reserves, specifically the problem of their transportation, and related issues such as the legal status of the Caspian Sea, is providing significant geopolitical leverage for a rearrangement of the relationships not only within the Commonwealth of Independent States (CIS) but elsewhere.

### *Geostrategy*

Geostrategy is a subset of geopolitics. Like geopolitics, geostrategy is concerned with the geography of a region, but the focus shifts from the higher level discourse to a level immediately concerned with the strategic advantages a political actor has due to its own geographical location. Kemp and Harkavy state that geostrategy refers to the 'control of, or access to, spatial areas, such as land and water, that has an impact on the security and economic prosperity of nations'[46]. The Eurasian steppe has provided a number of examples of geostrategic machinations of which the most current and salient is the construction of pipelines. Consequently, the process of seeking to construct various pipelines, and the transportation of oil and gas has acquired deep political implications – both regional and international, because of the various actors involved who are seeking to exploit the geography of the region.

### *The Great Game for the Heartland of the World ?*

In examining the issue of politics in Central Asia and the Caucasus in general, and pipeline politics in the Caspian basin in particular, similarities are often drawn with two historical themes found within the Eurasian steppe. The first

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[46] Geoffrey Kemp and Robert E. Harkavy, *Strategic Geography and the Changing Middle East*, (Carnegie Endowment for International Peace/ Brookings Institution Press: Washington, 1997). p. 8.

theme, based on the notion of the 'Great Game' stems from the 19th Century Anglo-Russian rivalry in Turkistan, Iran and Afghanistan[47]. The reason for the 'Great Game' was the rising geopolitical importance of the countries and territories of what was then referred to as Inner Asia, essentially modern Central Asia. This region itself was a means to an end: the means was imperialistic subjugation and control, and the end was the defence of the national interests of the European powers concerned - England and Russia.

After a period of some three centuries of relative isolation[48] from colonial powers, and pre-industrial stagnation, competing security interests of the great powers of the day propelled the region onto the chessboard of European diplomacy. British fears for India, and the belief that Tsarist Russia was looking for a warm water port increased with every Russian advance further into Central Asia which was greatly aided by the expanding railway network. The origins for this 'fear' originated from the 50,000 man force that Tsar Paul I sent towards India in 1800. The force was sent, according to Jukes, in 'response to a French suggestion that their appearance on the frontiers of the subcontinent would spark a native uprising'[49]. Shortly after this Paul was assassinated and his successor, Alexander I, recalled the force. The belief that Russia had its eyes on India was nevertheless to remain. By the late nineteenth century the distance between the two empires had been reduced from over two thousand miles to a mere twenty miles in the Pamirs[50]. Lord Curzon, viceroy of India, speculated however, that

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[47] See Morgan, op. cit., Edward Ingram, *Beginning of the Great Game in Asia 1828-1834*, (Oxford: Clarendon Press, 1979); Edward Ingram, *Britain's Persian connection 1798-1828: Prelude to the Great Game in Asia* (Oxford: Clarendon Press, 1992); Peter Hoprik, *The Great Game: The Struggle for Empire in Central Asia*, (New York: America Inc, 1992); Anthony Verrier, *Francis Younghusband and the Great Game*, (London: Cape, 1991). A number of recent publications about contemporary events also utilise the familiarity of the 'Great Game' such as Ahmed Rashid, *Taliban Islam, Oil and the New Great Game in Central Asia,* (London: I. B. Tauris, 2000) and Anoushiravan Ehteshami (ed.), *From the Gulf to Central Asia: Players in the New Great Game*, (Exeter: University of Exeter Press, 1994).

[48] Black, Cyril E., et. al. *The Modernization of Inner Asia*, (New York; M. E. Sharp, 1991). p. 15.

[49] Geoffrey Jukes, "The Soviet Far East", *Working Paper Number 1990/2* (Australian National University. Department of International Relations), (May 1990). pp. 1-2.

[50] Hoprik, op. cit., p. 5.

Russia was not so much interested in Calcutta, but Constantinople[51]. The 'game' was very much perceived to be about world dominance, regardless of whether this was the reality or not. The entire focus of the 'game' was the control of various regions and countries for their geostrategic standing against the other side.

Whilst there are some similarities between the old 'Great Game' and the current geopolitical manoeuvres it is the contention of this thesis that current geopolitical and geostrategic subterfuge does not constitute a new 'Great Game'. The reasons for this are unmistakable; the principle actors have changed and the prize is not India, if it ever was. Having said that, it would be erroneous to discard the similarity at the geopolitical level. What has not changed is the *Realpolitik* approach of the new actors involved. Previously the two main actors (Russia and England) saw their respective positions through the prism of *raison d'état* and those actions resulted in a defensive situation. Russia, which protected and defended its trade and economic development via the subjugation of the various 'unruly Turkic tribes' through *oeuvre civilisatrice*[52], can be seen as a defensive advancement. The building of the Trans-Caspian railway network contributed to the colonisation of the various Khanates in Central Asia, but this stemmed from an initial defensive, and colonialist, position of protecting against the disruptions that the various Turkic groups posed to Russian trade. England, in turn, sought to protect its own economic jewel in India by seeking to gain control over Iran and Afghanistan, thereby creating a bulwark against possible Russian encroachments. From a British point of view, defence of India was the central issue[53]. This perception was further strengthened by the advancing Russian conquest of Central Asia and the construction of the Trans-Caspian railway to Bokhara and Samarkand[54].

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[51] Kemp and Harkavy, op. cit., p. 37.

[52] Black, loc. cit.

[53] ibid.

[54] Kemp and Harkavy, op. cit., p. 131.

The current 'game' can also be seen from a defensive position, with a wider variety of actors involved, with self interest again being the primary reason. It is defensive in the sense that the main 'external' political actors, Russia and the US, each sees their movements in a protective light, as each tries to guard what it sees as its own 'region of influence'. This reason is based in part on the ideological structure of the respective polity. This issue of ideology is important, and is a factor in the current geopolitical and geostrategic struggle. If there is but one continuity between the 'Great Game' and the current political machinations, it is the dis-empowering of smaller local actors whilst larger external actors seek to dominate and subjugate the chessboard at the expense of the former.

This thesis also draws on the theory put forward by the English geographer Sir Halford Mackinder in 1904, that the Eurasian Steppe is 'the heartland of the world, and whoever rules the heartland rules the world'[55]. In discussing geopolitics, it is Mackinder who is seen as the principle contributor to this approach, although it was Haushofer who actually developed the use of the word *geopolitik*[56]. Mackinder's thesis was in part based upon his notion that the strength of maritime supremacy was at an end and a reassertion of land-based power was coming, if not already here. A principle element of this was the use of railroads as a primary means of transportation, a method that Russia used to its great benefit in subjugating the 'unruly Turkic tribes' of Central Asia. An essential issue in Mackinder's thesis was overland transportation (railroads) and the similarity with transporting oil and gas is not lost on astute readers of world history. Hegemony, according to Mackinder, in world politics would shift from those who ruled the sea to whomever controlled the 'pivot area'. Anthony Sampson has even suggested that the 'centre of gravity' in global energy is

[55] This famous maxim which had its conceptual origins in "The Geographical Pivot of History" actually appeared in his 1919 book "Democratic Ideas and Reality".

[56] Geopolitik, as a theory, originated in Germany and is strongly associated with Karl Haushofer. Geopolitik originally meant the exploitation of knowledge to serve the purposes of a national regime. As such this concept became closely associated with the Nazis and conquest, and is why the concept of geopolitics was much maligned. Geopolitics is a loose translation of Geopolitik.

shifting to the Caspian Sea region[57]. The region that Mackinder classified as the 'pivot area' represents, essentially, what is known as Central Asia.

> Is not the pivot region of the world's politics that vast area of Euro-Asia which is inaccessible to ships, but in antiquity lay open to horse riding nomads, and is today about to be covered with a network of railways[58].

Referring to Tsarist Russia, Mackinder said that 'in a world at large she occupies the central strategic position held by Germany in Europe'[59]. Mackinder redefined his determination several times, increasing and then finally reducing the size of the pivot area and changing its description from 'pivot area' to 'heartland'. It comes as no surprise then that the American policy of containment against the Soviet Union was in part based on Mackinder's vision and of course George Kennan's famous 'X' article in *Foreign Affairs* of 1947[60]. The heartland-rimland thesis became the conceptual basis for the post-1945 American policy *vis-à-vis* the Soviet Union. Relative to Central Asia, control of possible pipelines as well as access to the region, Mackinder's thesis again find resonance. Gennady Zyuganov, leader of the Communist Party in Russia, has openly stated that the 'main geopolitical aim' is to control the *hartlend* (heartland) as 'only the attainment of this objective will guarantee the basic national security of our state'[61]. Extremists such as Zyuganov and Vladimir Zhirinovsky openly embrace the notion of a 'resurrection of the Soviet Union and its return to the world stage as a superpower'[62]. It is this heartland region

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[57] Cited in Menon, ibid., p. 7.

[58] Sir Halford J. Mackinder. *The Scope and Methods of Geography and the Geographical Pivot of History* (London: Royal Geographic Society, 1951). p. 41.

[59] ibid., p. 43.

[60] George Kennan "X", "The Sources of Soviet Conduct" *Foreign Affairs*, Volume 25 (July 1947), pp. 566-582.

[61] John Erickson, "Russia will Not be Trifled with: Geopolitical Facts and Fantasies" *The Journal of Strategic Studies* Volume 22, Numbers 2/3 (June-September 1999), p. 262.

[62] Thomas R Pickering. "Russia and the US in the Middle East and Central Asia". *Occasional Paper* (Australian National University, Centre for Middle Eastern and Central Asian Studies) (August 1996). p. 5.

that all of the great powers of the world are involved in. No where else on the globe is there the possibility of conflict between the competing interests of the Russian Federation and the United States. The rimland, accessible by Russia through its overland transportation links, but inaccessible to the maritime based US, is a struggle for influence between land-based and maritime based world powers and can be interpreted through a geopolitical and geostrategic framework.

# Chapter Two

## Geological, Environmental and Legal Reality - What is the Caspian ?

As this study is concerned with geographical subterfuge, it is therefore expedient to spend some time discussing the actual physical geography of the Caspian. An understanding of the topographical nature of the region will enable a more structured approach in assessing the political factors involved in the exploitation and extraction of Caspian energy reserves. Knowledge of the physical composition of the Caspian will allow informed discussion, regarding the geopolitical nature of its energy reserves, possible directions of pipelines, environmental considerations, as well as the legal status of the Caspian Sea, to be attained.

The Caspian contains both the lowest and the highest points in 'continental Europe'[1]. The lowest is at the north of the Caspian Sea in the Caspian Depression, and the highest is Mt Elbrus, 5,633 metres above sea level, in the Caucasus range, which is some 800 metres higher than Mont Blanc. In fact there are several peaks in the Caucasus range over 4,000 metres, including Kazbek, 5,033 metres and Tebulos, 4,492 metres. Both of these extremes in the Caspian's terrain play a significant role in determining pipeline direction, and the development of Caspian energy reserves. Related to the issue of geography is, of course, the topic of the environment and its own strategic merit and value in the present discussion. Although often forgotten in discussions pertaining to the Caspian, apart from casual reference, this study will seek to introduce the environment as an integral element in the current debate[2]. To understand the

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[1] Of course it could be argued that this region is part of the Asian continent, but for the sake of comparison editorial liberty has been taken to emphasis the geological features of the region.

[2] As Hekimoğlu correctly asserts 'There are as yet few books available on the Caspian environment'. He cites a total of four books, written between 1992 and 1997. Levent Hekimoğlu, "Caspian Oil and the Environment: Curse or Cure ?", in Michael Croissant and Bülent Aras (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). p. 91. N1. For a recent, as well as depressing, account of the effects of unbridled oil pollution in the Caspian Sea cf; Nasrin Mohammad-Pour Dariaie, "Oil Pollution in the Caspian Sea" *The Times of Central Asia* Wednesday, 2 August, 2000, Volume 2, Issue 30 (73) as of July 27 at www.times.kg/2000/N30/fea-04.shtml [02/08/2000].

importance of the environment one only has to look at the tragedy that is [was] the Aral Sea, and the devastation caused by this ecological disaster. Accordingly, an examination of environmental factors in the region will be explored. Following on from this, the legal status of the Caspian Sea will be discussed, as the corollary issue of the sovereignty of the Caspian Sea is pivotal to the stable long-term development of the regions energy reserves.

### *An Exceptional Body of Water*

Relating to the question of what the Caspian Sea is, whether it is a Sea or Lake, one of the few commonalities that all observers seem to be able to agree on is the peculiarity of the Caspian Sea. As Golubev rightly states, 'the Caspian is exceptional by many standards'[3]. It is truly an anomalous body of inland water, essentially, but not solely because it is the largest inland body in the world. It is also unique because it is some 27 metres below the maritime sea level (MSL), yet has over time, repeatedly risen and fallen substantially as a result of 'natural oscillations of the components that make up the water balance'[4].

**Table 2.1** ***The average water balance of the Caspian Sea, 1900-1985***[5]

| **Component** | **$Km^3$/year** |
|---|---|
| River inflow | +298 |
| Precipitation on the Sea's surface | +74 |
| Evaporation from the Sea's surface | -370 |
| Outflow to the bay of Kara-Bogaz-Gol | -14 |
| Total | -12 |

[3] Genady N. Golubev, "Environmental policy-making for sustainable development of the Caspian Sea area", in Iwao Kobori and Michael H. Glantz, (eds.). *Central Eurasian Water Crisis: Caspian, Aral, and Dead Seas*, (Tokyo: United Nations University Press, 1998). p. 91.

[4] ibid.

[5] figures for Table 2.1 from Golubev, ibid., p. 93.

The Caspian Sea, like other similar bodies of water, is fed from inland rivers and in this case, primarily from one river - the Volga - the largest river system in Europe[6]. Importantly the Volga river basin belongs completely to the Russian Federation, contains approximately 40 percent of Russia's population, as well as one-third of its industrial and agricultural production[7]. A significant amount of pollution, in all forms, originates in the Volga river basin. This is of critical importance when considering environmental degradation of the Caspian Sea. The entire catchment basin area for the Caspian is 3.5 million square kilometres[8]. Granted there are other sizeable inland bodies of water below (the Dead Sea), as well as above (Lake Baikal) the open sea level that are exceptional in their own right, the Caspian Sea is, however, the largest inland body of water in the world.

The size of the Caspian Sea is staggering when compared with other similar reservoirs of water, such as Lake Victoria in Africa, with an area of 68,000 square kilometres (third largest in the world), or the Great Lakes, including Eire and Ontario, between America and Canada with a combined area of 245,000 square kilometres (second, fourth and fifth largest). The area of the Caspian Sea is around 393,000 square kilometres, which is larger than the combined area of the next nine largest inland bodies of waters[9]. With an overall length of some 1,200 kilometres, and a width that varies between 170-450 kilometres, the Caspian contains some 80,000 cubic kilometres of water. Its average depth is 180 metres with its deepest spot, south of Baku, being some 1,025 metres below surface level. The northern region, however, has a very shallow depth of only 6-10 metres. It is this region that is home to the sturgeon hatcheries, primarily south of Astrakhan in the Volga delta, but also near Atyraū, where the Ural river reaches the Caspian Sea. In considering this data, it is important to remember

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[6] The Volga accounts for approximately 88 percent of the Caspian Sea's total water input, and is by far the largest of the approximately 140 rivers that feed the Caspian. Siamak Namazi, "The Caspian's Environmental Woes" in Hoosang Amirahmadi (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000). p.123.

[7] ibid., p. 93.

[8] Hekimoğlu, op. cit., p. 84.

[9] According to Amineh, in 1929, the area of the Caspian Sea measured 422,000 square kilometres. Mehdi Parvizi Amineh, *Towards the Control of Oil Resources in the Caspian Region*, (Hamburg: Lit Verlag, 1999). p. 144.

that due to the continued variance in water level these figures are only general approximates.

From a geological perspective the territory of the Caspian Sea belongs to two different basins; North Caspian (Pricaspian) and South Caspian[10]. Although the Caspian Sea is one complete entity, morphologically it has three distinct regions of similar size: northern, middle and southern zones. The proportional volumes of these three parts are 1/100, 1/3 and 2/3 of the total volume, with salinity being the lowest in the north at 0.2 g/litre and rising to 12-13 g/litre in the southern region[11]. In comparison, salinity in the Black Sea is 18 g/litre, whereas open oceans have an average of 35 g/litre[12]. All riparian communities around inland lakes are exposed to fluctuations in the water level, and those adjacent to the Caspian are no different. The Caspian does, however, have a feature that differentiates it from other inland bodies of water. A large proportion of the riparian land, known as the Caspian Depression, is actually below that of the already negative Caspian Sea water level, which leads to wind-driven flooding and climate-induced variations in water level, particularly in the northern region.

### *The Caspian Depression*

The Caspian Depression extends from Makhachkala in Dagestan through the predominantly Buddhist republic of Kalmykia, all the way east around to immediately north of Fort Shevchenko on the *Tüpqarghan Tübegi* (peninsula) in Western Kazakstan. The lowest topographical elevation of the depression is -24 metres to that of the level of the Caspian's water level[13]. The extent of the Caspian Depression corresponds with the northern zone of the Caspian. This negative geological characteristic is not limited to the northern zone, as the southern zone also has a considerable amount of riparian land that is below the

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[10] For a concise geological overview of the wider Caspian region see; Manik Talwani, Andrei Belopolsky, and Dianne L. Berry, "Geology and Petroleum Potential of Central Asia" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April 1998) at www.riceinfo.rice.edu/projects/baker/publications/gppca/gppca.html [15/08/2000].

[11] Golubev, op. cit., p. 92.

[12] Hekimoğlu, loc. cit., N3.

[13] Talwani, Belopolsky, and Berry, op. cit.

current level of the Caspian Sea. To the casual observer this may not seem that important, most likely because the impact that this geographical feature has on the littoral states is hardly ever reported when discussions about energy reserves are raised. Ignorance of this issue extends to other sectors as well. In 1995 the World Bank's report on the Caspian's environmental challenges failed to mention the critical issue of sea-level rise[14]. This is inspite of the fact that pipelines from the Tengiz oil field and the old *Glavtransneft* system hug the northern coastline of the Caspian, constantly in danger of being overwhelmed by wind-driven flooding. The Tengiz oil field itself is in this depression, although some distance inland, yet nevertheless has already experienced flooding. The risk of flooding Azerbaijan's onshore oil fields, south of Baku, is also a very real possibility, especially if the Caspian continues to rise.

The hazard posed to the riparian actors energy industry cannot be understated. Oil wells and pipelines are exposed to the risk of being permanently flooded, because of rising water levels. To date it has not proved possible to predict the extent of the water level change let alone provide an answer as to why the Sea is again rising. The impact that the damage will cause to infrastructure, and the like, because of these fluctuations will increase should the Caspian continue to rise, as it has done since 1977.

### *Impact of the Rising Water Level*

The damage that the rising water level has caused, and will continue to cause, cannot be ignored, as the diminishing water level of the Aral Sea for so long. It is ironic that the declining level of the Aral Sea was used, in the 1970s, to argue that the Caspian too would continue to decrease[15]. It was during the period, from the 1930s until the 1970s, that new settlements, roads, ports and oil installations were built with the assumption that the sea level would be -28 metres below, whereas today it is approaching -26 metres below[16]. Central planning forgot to

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[14] Hormoz Goodarzy, "Organizational Response to Caspian's Environmental Needs" in Hoosang Amirahmadi, (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000). p. 140.

[15] Golubev, op. cit., p. 95.

[16] ibid., p. 99.

consult the local inhabitants as to why they refrained from building large facilities close to the shore[17]. As Kuksa has demonstrated, there are four distinct periods in the past 100 years where the Caspian water level has oscillated significantly.

Table 2.2 ***Significant periods of water level change in the Caspian Sea since 1900***[18]

| **Period** | **Change** |
|---|---|
| 1900-1929 | Relative stability of the water balance. The water level oscillated slightly around -26.2 metres below sea level. |
| 1930-1941 | Water balance deficit of 62 cubic kilometres. Water deficit led to a sharp drop in the water level of 1.8 metres. |
| 1942-1977 | Modest deficit in the water level of 1.3 metres. |
| 1978-present | Positive water balance. The water level has been increasing from its lowest point of -29.0 metres in 1977. In 1994, the water level was -26.5 metres, an increase of 2.5 metres. |

The economic damage already has been extensive and if the water level continues to rise, the results will be catastrophic. The Caspian Sea's ecological changes will immediately affect five nations, unlike the Aral Sea disaster[19], as well as a host of foreign oil and gas companies, that have invested literally billions in hard currency into the region. In Iran, since 1989, there have been reports of thousands of homes destroyed, with as many as 18 coastal cities threatened by rising water levels[20]. Flooding in the southernmost city of Astara in Azerbaijan, in 1991, resulted in thousands of residents being forced to leave

[17] Namazi., op. cit., pp. 127-128.

[18] V.I. Kuksa cited in Golubev, op. cit., p. 94.

[19] Originally the Aral Sea affected only one nation, the Soviet Union. Now the impact of the Aral is now felt by not only the Central Asian states of Kazakstan and Uzbekistan, but also from a host of countries, such as India, who have seen crop degradation from the salt pans produced in the Aral basin. These salt pans also contain high levels of pesticides and other chemicals used in the cotton farming.

[20] "Eighteen cities come under threat as sea level rises in the Caspian", *Greenpeace Climate impact database* www.greenpeace.org/~climate/database/records/zgpz0339.html [13/05/1999].

the city[21]. In Kalmykia, in 1995, wind-driven flooding resulted in 200,000 hectares being inundated, with over 500 homes destroyed and approximately 150,000 head of sheep lost[22].

In Kazakstan, between 1978 and 1985, an estimated 20,000 square kilometres was engulfed by rising sea levels, with 357,000 hectares of agricultural land lost, along with 200,000 head of livestock[23]. In order to protect the port city of Shevchenko (Aqtaū) funding was obtained in 1996 from the European Bank for Reconstruction and Development (EBRD) to lengthen the protective quay wall, around the port, a further 400 metres as well as raising it 2 metres higher. Ron Freeman, Vice President of the EBRD said "EBRD financing will keep the port operational by raising the level of cargo berths to protect them from the sea"[24]. The cost for this project is estimated at $54 million dollars[25].

What long-term impact the rising water level will have on the burgeoning oil and gas industries remains to be seen, although early warning signs are quite visible. Even with the construction of protective dykes, it would seem impractical to continue to build and plan on the current level of the Caspian. A water level at -25 metres would result in the loss of 16,500 square kilometres; over 100 settlements with 100,000 people would be inundated in the Russian Federation alone[26]. Already in Astrakhan, 10 percent of agricultural land has been lost, and the Martyshi oil field is now covered by half a metre of water[27]. In Turkmenistan, rising Caspian levels have damaged oil and gas pipelines around the, once again, island town of Cheleken, whereas Kazakstan has had ten cases of

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[21] "50,000 evacuated as Caspian sea rises", *Greenpeace Climate impact database* www.greenpeace.org/~climate/database/records/zgpz0845.html [13/05/1999].

[22] Golubev, op. cit., p. 92.

[23] Namazi, op. cit., p. 127.

[24] "Long-term EBRD financing to rescue Kazak Caspian Port of Aktau" *Press Release* 16 April 1996 at www.ebrd.com/english/opera/PRESSREL/pr1996/27apr16.htm [01/12/2000].

[25] Namazi, loc. cit.

[26] Golubev, op. cit., p. 99.

[27] Namazi, loc. cit.

severe flooding in the past 25 years alone[28]. Kemp and Harkavy mention that Kazakstan has already seen considerable damage to its oil and gas industry. Some 1,400 wells are now submerged, including 127 wells in the Tengiz field alone, causing losses in excess of one million barrels. Flooding has advanced in some cases up to 43 miles (70 km) inland[29]. Namazi states that 20 out of the 32 oil fields in the Atyraū oblast, a region that contains the Tengiz oil field are high risk areas[30].

### *Monoculture and the Environment*

When environmental concerns are raised, the tragic fate of the Aral Sea is often cited, and so it should be[31]. However, reference to the Aral's demise is invariably couched in derision of the evils of the Soviet system, meaning that such a disaster could never happen in the free world. Whilst there is certainly truth to the Soviet's attitude and actions, the real cause of the Aral's situation stemmed not from Soviet planning *per se*, but rather a narrow-mindedness not entirely unique to Soviet planning. Pursuing short-term economic gains over a lengthy and extended period of time, without adjusting the process to achieve these initial outcomes, was a primary factor in the destruction of the Aral Sea. The unbridled expansion into cotton, creating a monoculture is *prima facie* evidence for such myopic planning[32]. Between 1913 and 1986, land under cultivation increased from 648,000 hectares to an astronomical 7,100,000 hectares, enabling over 90 percent of Soviet cotton to come from the CARs[33]. In order to irrigate this intensive water hungry crop, water from the Aral's two feeder rivers: Amu Darya

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[28] Golubev, op. cit., p. 100.

[29] Kemp and Harkavy, op. cit., p. 136.

[30] Namazi, loc. cit.

31 For a disturbing report on the recent impacts of the Aral Sea disaster see Tsuneo Tsukatani. "The Aral Sea and socio-economic development" in Iwao Kobori and Michael H. Glantz (eds.). *Central Eurasian Water Crisis: Caspian, Aral, and Dead Seas* (Tokyo: United Nations University Press, 1998). pp. 53-88; Also see Michael. H Glanz, et.al. "Tragedy in the Aral Basin: Looking Back to Plan Ahead ?", in Hafeez Malik (ed.). *Central Asia Its Strategic Importance and Future Prospects* (London: Macmillian Press, 1994). pp. 159-194.

[32] See James Critchlow, *Nationalism in Uzbekistan: A Soviet Republics Road to Sovereignty*, (Boulder: Westview Press, 1991).

[33] Hooman Peimani, *Regional Security and the Future of Central Asia: The Competition of Iran, Turkey and Russia* (Connecticut: Praeger, 1998). p.92.

and Syr Darya, were diverted into inferior irrigation systems, which has left the region with a fast growing desert where a thriving ecosystem once existed[34].

Cotton itself was not the sole culprit, but it was indeed the basis for the resulting catastrophe that followed. It is completely correct to say that if the was no monoculture, in this case cotton, then the Aral Sea would still be alive, instead of the putrefying remnants that make up the northern and southern portions of what was once the world's fourth largest inland body of water. The reason for relying on such gigantic scale cotton production, which incidentally is indigenous to the region, stemmed from two sources; the Soviet Command Economy and Sharaf Rashidov, first secretary of the Uzbek Communist Party Central Committee from 1959 until his death in 1983[35]. Tsukatani candidly states that "the cotton monoculture was the creation of Rashidov himself"[36]. The reality is of course not that accurate, a number of factors, including Rashidov, as well as command economic planning, gross incompetence and corruption all contributed. The focus on raw cotton as a hard currency earner for the CARs has not changed since the fragmentation of the USSR, in particular for Uzbekistan, the fifth largest producer of cotton in the world[37]. It has become the necessary evil, too expensive to reform or significantly improve, without the injection of vast amounts of foreign capital, and yet still capable of providing an economic benefit to the economy, but at great expense to the environment, and the long-term viability of the crop itself.

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[34] For a detailed account of the destruction of the Aral Sea see; Francheska Chalidze, "Aral Sea Crisis: A Legacy of Soviet Rule" *Central Asia Monitor*, No.1, 1992 at www.chalidze.com/cam/02,1,2.htm[02/12/2000].

[35] Critchlow mentions that cotton had been an integral part of the Soviet economy since 1920 when Lenin signed a decree calling for the revitalisation of cotton-growing on a 'socialist' basis. Critchlow, op. cit., p.62. Cotton actually has been a staple export commodity of Central Asia since the days of the American Civil War which had cut off Russia's primary source of raw cotton. Edward Allworth (ed.). *Central Asia 120 Years of Russian Rule* (Durham: Duke University Press, 1989). pp. 28-29. Jukes believes that the American Civil War led to a renewed Russian advance into cotton-growing areas. Geoffrey Jukes, *The Soviet Union in Asia*, (Sydney: Angus and Robertson/Australian Institute of International Affairs, 1973), pp. 34-35.

[36] Tsukatani, op. cit., p. 58.

[37] ibid., p. 57.

Whilst the destruction of the Aral Sea is by far the most telling example of cotton monoculture, the use of extremely potent pesticides and chemicals, in the main for the cotton crop, is another by-product. Tsukatani refers to a lengthy list of fertilisers, pesticides and defoliants, including, but not limited to DDT, BHC, methyl mercaptophos, octamethyl, and butifos[38]. Butifos in particular which was known to effect the central nervous system, heart, liver, kidneys, as well as immunological reactions, and which Uzbekistan used on 60 percent of its fields in 1985, was not banned by the USSR Ministry of public Health until 1987[39]. The resulting over-use of chemicals, Uzbekistan alone used over 300 kg per hectare in 1987, whereas the USSR average for the same year was 122 kg, has had a devastating effect. As a result of such over-use, the chemicals have filtered through to the groundwater layer. A capillary channel, a result of using large amounts of irrigation water, between the groundwater and the surface water, acts as means for the contaminated ground water to rise to the surface[40]. Once this occurs the water is either consumed by humans, or it evaporates leaving behind a toxic layer, which in turn is distributed even further through chemical laden dust storms. Quite simply, the demise of the Aral Sea has seen a dramatic increase in mortality rates, life expectancy has sharply fallen and disease, such as Tuberculosis, is rampant[41].

A failure to change inadequate cultivation methods, embrace better technology, decrease dependence on abusive processes, and a complete disregard for the long-term effects on the environment and the surrounding population were all factors in this tragedy. Cotton was however too central to the CARs. It was, and still is, a very important hard currency commodity. However with the advent of the hydrocarbon industry, oil is fast becoming the hard currency commodity for the littoral states, especially Kazakstan and Azerbaijan.

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[38] ibid., p. 63.

[39] ibid., p. 64.

[40] ibid., p. 63.

[41] "Water Wars: Part II – The Aral Sea", *BBC News* cited at ww.caspianstudies.com/news/bbc00-03.htm [16/06/2000].

### *Emergence of a New Monoculture ?*

There is the possibility for a similarly hypertrophic result stemming from the excessive reliance of various actors on energy exploitation and extraction, even though the region is no longer functioning in an integrated command economy. With the rush to exploit the energy reserves of the Caspian, the same process of pursuing short-term economic gains, if left to develop along the lines of the cotton monoculture, will have an impact that will out-weigh any possible advantages taken from exploiting the oil and gas reserves[42]. Should this be the case then the environment will once again suffer, unless clear and enforceable environmental safeguards are administered. To date there have been some positive signs[43] but if the case of the Sturgeon, or the Caspian seal (*phoca caspica*), are taken as examples, then there is still a lot to be done to ensure that exploitative economic single-minded practices do not impact upon the Caspian Sea in such a negative capacity as was the case with the Aral Sea.

The Caspian Seal, the only mammal in the Caspian Sea, and only one of two freshwater seal species, has suffered a similar fate to the sturgeon[44]. In early June 2000, an estimated 11,000 seals were found dead, or dying, in Kazakstan and in Dagestan, most washed up around Aqtaū, bleeding from their noses, mouths and ears[45]. The cause of death – most likely, but unproved; poisoning from sulfur gas, a deadly colloid by-product of oil extraction. The source of the contamination has reputedly been linked to Tengizchevroil (TCO) and the Offshore Kazakstan International Operating Company (OKIOC), but along with some Kazak officials, these companies have denied any sulfur discharges

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[42] See Dariaie, ibid.

[43] The Azerbaijan International Operating Company (AIOC) has recently set up the Caspian Environmental Laboratory in order to monitor the effects of oil field development in the region. "Giving a green boost" *News and Topics* at www.statoil.com [05/03/99].

[44] There is an estimated population of 400,000 seals in the Caspian Sea, of which 30,000 to 40,000 are hunted annually, making this the second largest hunting ground for the seal globally. Namazi, op. cit., pp. 124 & 129.

[45] Anna Badkhen, "Oil Rush may kill Caspian Ecosystem', *The Times of Central Asia* Wednesday, 2 August, 2000, Volume 2, Issue 30 (73) as of July 27 at www.times.kg/2000/N30/fea-02.shtml [02/08/2000].

occurred[46]. The Kazak Environment Minister Serikbek Daukeyev has, however, openly stated that there is a link between the mass deaths of seals in the Caspian Sea to 'oil wastes and pesticides'. Daukeyev said expert analyses had shown large amounts of pesticides and toxic oil wastes in the animals' bodies[47]. There have also been reports that TCO and OKIOC have exceeded, on several occasions, maximum permissible content limits for mercury and cadmium, which may have lead to the systematic poisoning of both sturgeon and seal.[48]. Because there is no unified legal regime in force throughout the Caspian Sea it is very difficult to maintain common standards relating to exploration based pollution. In March 2000, the littoral states met in Kazakstan and agreed upon a draft environmental plan for the Caspian Sea, implementation, however, is dependent upon finalisation of the territorial disputes[49].

In comparing the fate of the Aral Sea with that of the rising water level of the Caspian Sea, there is one striking difference; fluctuating water levels of the Caspian Sea are a natural occurrence. Most long-term environmental calamities are however, caused not by nature but rather, in the first instance, by mankind. Reliance on the cotton monoculture can easily be repeated with a reliance on energy reserves. Whilst the Caspian Sea is not shrinking, a number of significant problems associated with hydrocarbon exploration in the low-lying areas around the Caspian Sea are causing environmental concerns, such as those highlighted above. Increased reliance on energy reserves will not just affect the ecology of the Caspian Sea. The three emerging exporters; Kazakstan, Turkmenistan and Azerbaijan might also fall prey to Dutch disease, which in an agricultural economy will have devastating consequences. However, before the necessary expansion can effectively proceed, that may in turn lead to this economic problem, the issue of whether the Caspian Sea is a sea or a lake needs to be

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[46] ibid.

[47] "Seals' Deaths Linked to Major Joint Venture", *The Oil Daily*, June 8, 2000 at www.findarticles.com/cf_0/m3TOD/110_50/62595760/p1/article.jhtml [01/12/2000].

[48] "Oil Companies Kill Kazakh Seals" *The Times of Central Asia* Wednesday, 2 August, 2000, Volume 2, Issue 30 (73) as of July 27 at www.times.kg/2000/N30/fea-01.shtml [02/08/2000].

[49] Daphne Biliouri, "Caspian Region Strives to Balance Offshore Oil Development With Environmental Concerns" *Eurasianet Environment* August 21, 2000 at www.eurasianet.org/departments/environment/articles/eav032000.shtml [21/08/2000].

resolved to the satisfaction of all the littoral states. Resolution of this issue will result in stability within the region relating to exploration, and enable joint discussion on the environment, as well as the notion of a trans-Caspian sea pipeline. Unilateral decisions can then be made within an agreed framework regarding the legal position of actors involved, which is currently not possible.

### *The Legal Status of the Caspian Sea – Does it really matter ?*

Discussions that revolve around the Caspian Sea often make passing comment to a number of issues that are important to the long-term viability of the Caspian Sea as an economic, as well as an environmental zone. One of these is the environmental consequences of unbridled exploitation of the Caspian Sea's key energy resources, which was discussed above, another is the legal status of the Caspian Sea. These two issues are often overlooked, or merely not comprehended to the extent deserved. This thesis posits that environmental and economic sustainability in the Caspian is dependent upon a successful resolution to the legal status of the 'ownership' of the Caspian Sea. The two issues are inter-twined because once an agreed decision has been reached on the legal status of the Caspian Sea, then adequate collective and individual responsibility for the Caspian Sea can be established. Until agreement is reached there is no real incentive for individual actors to combat environmental damage, and collective action is simply not possible.

Any discussion on the Caspian energy reserves must seek to address the complex issue regarding the legal status of the Caspian Sea. It is required because a significant amount of exploration occurs in offshore waters that may be viewed, by other actors, as their sovereign territory. Ambiguity regarding the legal boundaries, will result, and already has, in tensions between the various actors involved, which may easily escalate with a change in leaders and/or perceptions of where boundaries should lie. This does not mean that resolution of the legal position of the Caspian Sea will negate the possibility of conflict. It will, however, provide a framework to promote stability and enable clear guidance concerning current and future investment in the region, something that is clearly

lacking at the present moment. Until the issue is resolved stability will not be forthcoming.

### *The Issue*

The issue is quite simple: is the Caspian Sea a sea, or is it a lake. It might be argued that the debate itself is disputable, because the Caspian Sea is already referred to as a 'sea'. However, as Oxman mentions, the use of 'proper names in geography is not the result of scientific, legal or political classification, most proper names defer to custom'[50]. Oxman continues by suggesting that 'The fact that the proper name uses the word 'sea' says little about either its scientific or it normative classification'[51]. The legal conjecture is nevertheless real and substantial. Whether or not the Caspian Sea is a sea, a lake, or a unique international body of water, will have a direct bearing on energy reserve exploration and exploitation.

The substantive question however, regarding the legal status of the Caspian Sea is not about the sea itself, but rather about what is under the sea, namely the seabed and subsoil resources. It is from this that the current debate stems, because once a unified legal regime is adopted, or is proven, it will have an almost immediate impact on the ability of actors to exploit the energy reserves. If the Caspian Sea is a sea, then each littoral state has certain rights under the 1982 United Nations Law of the Sea Convention, which came into effect on 16 November 1994. These rights include a twelve nautical mile zone of sovereign territorial sea and a 200 mile Exclusive Economic Zone (EEZ)[52]. If it is a lake, then each state maintains a nominal exclusion zone, but the centre of the lake is collectively owned, and the resources are equally shared.

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[50] Oxman, Bernard H, "Caspian Sea or Lake: What Difference Does It Make ?", *Caspian Crossroads Magazine*, Volume 1, Number 4 (Winter 1996). At www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

[51] ibid.

[52] Cynthia Croissant and Michael Croissant, "The Legal Status of the Caspian Sea; Conflict and Compromise", in Michael Croissant and Bülent Aras, (eds.). *Oil and Geopolitics in the Caspian Sea Region*, (Westport: Praeger, 1999). p. 25

Before the fragmentation of the Soviet Union, issues such as the ownership of the Caspian Sea, or more correctly, right of access to the Caspian Sea, were much simpler. With the end of the cold war the situation has fundamentally changed and taken on a more complex dimension. Before 1991, the Caspian Sea was divided between two states, the Soviet Union and Iran. Now it is bordered by five independent states, and each is laying claim to what each perceives as their exclusive sovereign territory, with no regard to fact that there is no agreement concerning the legal status of the Caspian Sea. To understand the current geopolitical situation a knowledge of the legal regime that existed before 1991 is instrumental.

### *The 'Soviet-Iranian' Sea*

Prior to 1991 there were two primary binding treaties between Moscow and Tehran concerning the Caspian Sea, although there have been many other treaties between the two for several centuries[53]. The Soviet-Persian Treaty (26 February 1921), established freedom of navigation for both Soviet and Persian ships on the Caspian Sea. In two previous treaties, 1813 and 1828, there were restrictions on Persian maritime traffic. The second treaty, the Treaty on Trade and Navigation between the USSR and Iran (25 March 1940), echoed the 1921 treaty regarding maritime traffic and also included a ten mile offshore fishing zone[54]. What these treaties failed to do however, was actually define the issue of territorial sovereignty, the primary cause of dispute in the current debate. The treaties were more concerned with access, in particular limiting third party access. The Caspian Sea was, for practical and legal purposes, a jointly shared international body of water between these two countries. The real effect of these treaties was to intimate that the Caspian Sea was a condominium[55].

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[53] Mirfendereski cites nine treaties; 1725, 1732, 1813, 1828, 1881, 1893, 1921, 1954 and 1957 and one undisclosed memorandum in 1962. Guive Mirfendereski, "Lost at Sea", *The Iranian,* (October 29 1998) at www.iranian.com/GuiveMirfendereski/Oct98/Caspian/index.html [06/01/2000].

[54] Croissant and Croissant, op. cit., p. 23.

[55] Condominium is sovereign control over a dependent territory by two or more states. It is a comparatively rare form of legal and political control. Graham Evans and Jeffrey Newnham, *Dictionary of International Relations*, (London: Penguin Books, 1998). p. 92.

In 1991, after the fragmentation of the Union, the Alma-Ata Declaration, which established the Commonwealth of Independent States (CIS), 'committed the former Soviet States to honour all international treaties signed by the USSR'[56]. Thus the treaties are, in a juridical sense, still legally binding. As Croissant and Croissant mention, 'Since these treaties were never formally rescinded, Russia insists that they are still applicable[57]. To suggest that the demise of the Soviet Union rendered these treaties, but not others null and void, is plainly illogical and incorrect. Legally, if the treaties that contained the Soviet Union as a signatory were to be classed as invalid, than all treaties, including the 1982 Law of the Sea Convention, which a number of littoral actors have been promoting would also be abrogated. Clearly, seeking to use a formal argument such as this does not hold.

### *Enclosed or Semi-Enclosed Seas*

The Soviet attitude, based on the notion of the Caspian Sea being a closed sea, was to exclude any third party from attempting to access the Caspian Sea, either via the Volga/Don river and canal systems, or other means, such as when English forces attempted to take control of Baku after the First World War[58]. Churchill is reported to have said that 'allied control of the former Russian Empire cannot be reliable if the northern Caucasus and the Caspian area are not under the control of the western powers'[59]. The Soviets viewed the Caspian Sea as a 'closed sea', a concept they tried to extend to the Black Sea[60]. A brief mention of the United Nations Law of the Sea Convention, in particular Article 122, 'Enclosed or Semi-Enclosed Seas', is required at this point.

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[56] Galia Golan, *Russian and Iran A Strategic Partnership ?* (London: Royal Institute of International Affairs, 1998). p. 14.

[57] Croissant and Croissant, loc. cit.

[58] Hassanov, loc. cit. and Maxwell, loc. cit.

[59] Cited in Yagmur Kochumov, "Issues of International Law and Politics in the Caspian in the Context of Turkmenistan-Azerbaijan Discussion and Fuel Transportation", *Caspian Crossroads Magazine*, Volume 4, Number 2, (Winter 1999), At www.ourworld.compuserve.com/homepages/usazerb/422.htm [28/12/98].

Article 122.

> For the purposes of this Convention, "enclosed or semi-enclosed sea" means a gulf, basin or sea surrounded by two or more States and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States[61].

The general principle of the Law of the Sea is that it applies to the seas and oceans of the world. This is extended to oceans or seas that are either 'enclosed or semi-enclosed' that may be connected by a 'narrow outlet'. It is fair to say that the Volga and the Don river systems are not 'narrow outlets'. Logic like this would allow Lake Victoria in Africa, as well as other inland lakes being classed as 'enclosed seas'. Clagett makes another valid point relating to the discussion regarding the Law of the Sea: 'The reason why the law of the sea is not applicable to inland seas in its entirety, is freedom of navigation, which is a cardinal principle of the law of the sea'[62]. If this view is taken, then the Caspian Sea cannot be a sea, enclosed or otherwise; it is a lake. The problem is that if the Caspian Sea is a 'lake' it would provide considerable support to the 1921 and 1940 treaties. Should these treaties be accepted as binding then unilateral decisions could be overturned in multi-party discussions. However acceptance of these treaties from Kazakstan and Azerbaijan is not forthcoming. If this position is taken, it leaves the door open for a number of propositions as to what the Caspian Sea should be and these proposals are constructed by looking through the dual prism of geopolitical and geostrategic objectives.

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[60] Amineh, op. cit., p.145.

[61] *Law of the Sea Convention* cited at www.tuffs.edu/departments/fletcher/mulit/sea.html [11/12/99].

[62] Brice M. Clagett, "Ownership of Seabed and Subsoil Resources in the Caspian Sea Under the Rules of International Law", *Caspian Crossroads Magazine*, Volume 1, Number 3, (Summer/Fall1995), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

### *Current Proposals*

There are several conflicting proposals for dividing the Caspian Sea. Essentially, there are two opposing views, along with the ever oscillating 'neutral' Turkmenistan. Supporting the notion of common ownership have been the Iranians and the Russians, and occasionally Turkmenistan, whilst the Kazaks and Azeris have been advocating sectoral division of both the Sea and the subsoil. In all truthfulness, however, all the parties except the Azeris have changed the positions or modified them during the last few years, which has contributed to the current state of confusion.

In 1996, Russia, Iran and Turkmenistan signed a declaration supporting joint ownership and equal sharing of resources[63]. However in April 1998, Russia and Azerbaijan agreed to divide the seabed adjacent to their coasts into national sectors, and two months later Russia and Kazakstan agreed to do the same[64]. Two years earlier, Russia was proposing a 72 kilometre zone of national jurisdiction[65]. In response to this change, both Iran and Turkmenistan rejected this new approach as, according to them, it violates an agreement reached in Turkmenistan that any change to the legal regime must be agreed unanimously[66].

Russia has also proposed dividing the seabed and subsoil into national sectors, but having the actual sea as an international body of water. In support of this proposal, Feliks Kovalev, Ambassador-at-Large for the Russian Federation, said that if the Caspian Sea was to be divided into national sectors each 'owner' of the respective sector 'will at his own discretion adopt specific norms, and either observe or not observe them. The risk of ecological disasters would be increased many times over'[67]. In response to this split apportionment, the Iranian foreign

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[63] Mirfendereski, loc. cit.

[64] ibid.

[65] Lena Jonson, *Russia and Central Asia: A New Web of Relations*, (London: Royal Institute of International Affairs, 1998). p. 71.

[66] Iran Weekly Press Digest 1998, July 4-10, Volume 11, Number 28 cited in Amineh, op. cit., p. 153.

[67] Feliks Kovalev, "Caspian Oil: Russian Interests" *International Affairs*, Volume 43, Number 3 (1997), p. 49.

minister Kamal Kharrazi rejected the proposal. 'If there is going to be a division accepted by different countries, I'm sure that one legal regime has to be applied to the sea bed, as well as the waters of the Caspian Sea'[68]. Quick to downplay this Boris Pastukhov, the First Deputy Foreign Minister, reaffirmed Russia's commitment to the 1921 and 1940 treaties with Iran shortly after this new approach was announced[69]. As with other proposals the latest Russian one actually has yet to be accepted by all the players. The US view on the legal status of the Caspian Sea is simple. James Collins, the Special Ambassador to the New Independent States, said, in a 1996 letter to Aliyev, President of Azerbaijan, that Washington 'supports our investment companies and upholds the idea of sectoral division of the Caspian Sea'[70].

### *Recent disputes*

Concern regarding the unresolved nature of the Caspian Sea did not seem to effect energy reserve exploration, when foreign firms (including Russia's LUKoil), signed an agreement on 20 September 1994, with Azerbaijan and the State Oil Company of Azerbaijan (SOCAR) to explore the offshore oil fields of Azerbaijan[71]. However, in a letter sent to the Secretary-General of the United Nations on 5 October, 1994, the Russian Federation delivered a strongly worded threat to those involved, or seeking to be, in energy exploration without Russia's consent and participation. In part the letter said:

> Unilateral actions in the Caspian Sea are unlawful and will not be recognised by the Russian federation, which reserves the right to take necessary steps at any time that it considers appropriate in order to

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[68] Cited in Elaine Sciolino, "It's a Sea, It's a Lake ! No. It's a Pool of Oil !", *New York Times on the Web* (June 21 1998) at www.nytimes.com [17/02/99].

[69] Croissant and Croissant, op. cit., p. 35.

[70] ibid., p. 33.

[71] Pavel Baev, *Russia's Policies in the Caucasus* (London: Royal Institute of International Affairs, 1997). p. 32.

restore law and order and liquidate the consequences of unilateral actions[72].

It would seem that LUKoil's involvement, and the attendance of a representative from the Russian Ministry of Fuel and Energy, failed to convince the Russian Foreign Ministry that Russia was involved[73]. Ominous as the threat sounded, copies of which were also delivered to the states of those firms involved, to date there has been no signs of flotilla sailing down the Caspian Sea to 'liquidate the consequences'. Earlier that year (1994) the Russian Foreign Ministry informed the English government of Russia's right to coordinate all energy development in the Caspian Sea. London was targeted because of the primary role that BP was perceived to be playing in Azerbaijan[74].

It needs to be pointed out that because of what Jonson calls 'a lack of policy coordination' different ministries from Moscow have either supported, or acted against, the official government line regarding the legal status of the Caspian Sea, at the same time[75]. A salient example of this is occurred in 1993 when Yuri Shafranik, Russian Fuel and Energy Minister, signed an agreement with Azerbaijan that actually 'recognised an Azerbaijani sector in the Caspian Sea'[76]. Disputes specifically related to the Caspian Sea's legal status have however been few, albeit significant. There have been two recent disputes worth commenting on which occurred as a specific result of the unresolved nature of the Caspian Sea status and relate directly to exploration of Caspian energy reserves.

In mid 1997, the State Oil Company of Azerbaijan (SOCAR) and two Russian oil companies - LUKoil and Rosneft - agreed to develop the disputed Kyapaz/Serdar

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[72] Oumerserik Kasenov, "Russia, Transcaucasia and Central Asia: Oil, Pipelines, and Geopolitics", in Roald Z. Sagadeev and Susan Eisenhower (eds.). *Central Asia Conflict Resolution and Change*, (Chevy Chase: CPSS Press, 1995). p. 69.

[73] Baev, loc. cit.

[74] Robert V. Barylski, "Russia, the West, and the Caspian Energy Hub", *The Middle East Journal* Volume 49, Number 2, (Spring, 1995). pp. 223.

[75] Jonson, op. cit., p. 69.

[76] Rosemarie Forsythe, *The Politics of Oil in the Caucasus and Central Asia* (London: Oxford University Press, 1996). p. 29.

field, which is essentially in the middle of the Absheron sill[77]. This is a field that Turkmenistan claims as its own, and refers to it as Serdar. Initially, Russia appeared indifferent, but towards the end of July a Russian delegation went to Turkmenistan to apologise, but to also justify its position. Turkmenistan threatened the Russian Federation with international legal action and insisted that 'no more oil agreements should be signed with Baku until the question of the Caspian Sea's status is settled definitively'[78]. Eventually Russia capitulated and 'persuaded' the Russian oil companies to withdraw from the disputed contract. A reason given was that the contract had been signed 'behind the back of the foreign ministry'[79]. A week later Turkmenistan issued a call for tenders to prospect and extract oil and gas in the Turkmen 'sector' of the Caspian sea[80].

The second incident was between Russia and Kazakstan. In August 1997, the Russian Ministry of Natural Resources announced a closed tender (available only to Russian firms) for a section in the north east of the Caspian Sea, near the Kazak-Russian border. The field, called Severny in Russian, and Kurmamgazy in Kazak, is believed to hold in the vicinity of 150-600 million tons of recoverable oil, also happens to overlap with a section that Kazakstan considers its very own. The area of the Severny license area is 8,500 square kilometres. A spokesman for the Russian foreign ministry mentioned that the successful tenderer would have to adhere to 'adjustments to sector boundaries'[81]. Shortly thereafter, on December 10, LUKoil was named the winner of the tender. Kazak protests were initially dismissed as groundless, with Russia stating the 'obvious' that 'there have never been any borders in the Caspian Sea legalised via treaties'[82].

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[77] Jonson, op. cit., p. 70.

[78] Croissant and Croissant, op. cit., p. 34.

[79] Jonson, op. cit., p. 71.

[80] ibid.

[81] Mikhail Alexandrov, "Russian-Kazakh Contradictions on The Caspian Legal Status", *Russian and Euro-Asian Bulletin*, Volume 7, Number 2, (February 1998), p.10.

[82] ibid.

During the conflict over the tender, LUKoil's president Vagit Alexperov, offered to upgrade an oilfield, increase LUKoil's share in TCO from 5 to 10 percent, as well as reminding Nazarbayev that LUKoil had already invested 300 million dollars into Kazakstan and the investment could reach 740 million[83]. However in a surprise move, the Russian Prosecutor General protested the tender results on ecological grounds, as the region had previously been declared a 'natural reserve and a breeding ground for fish by the government of the then Russian Soviet Federated Socialist Republic'[84]. LUKoil accepted the decision. The most logical reason why LUKoil acquiesced so easily is that Russia still wants Kazak oil to flow through Russian territory all the way to Novorossiysk, pushing the point about who controlled what, may have encouraged the Kazak government to consider alternative routes for its oil, thereby decreasing the amount of influence Russia would have over Kazakstan. Nevertheless in spite of this, Kazakstan has begun to explore in this region, and the legality of their actions are not questioned[85]. In a recent press release LUKoil announced that it would begin exploration in the Severny license area 'as a result of the tender held in December 1997'[86].

### *What is to be done ?*

Bernard Oxman makes a sobering point regarding the legal status of the Caspian Sea.

> Attempting to determine the rights and duties of the states concerned by a process of deductive reasoning based on the status of the Caspian Sea as a sea or a lake is largely, if not entirely, a pointless endeavour.

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[83] Vladimir Babek, "Kazakstan: Big Politics Around Big Oil" in Michael Croissant and Bülent Aras (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). p. 191.

[84] ibid.

[85] In fact, in 1994/95, the Soviet Government decreed that the entire region in the Caspian Sea above the 44th parallel was to be set aside as a ground for the reproduction of rare fish and all human activity, except sailing and fishing, was banned. ibid., p. 192.

[86] "LUKoil launched drilling of the second exploratory well at the Severny license area in the Caspian" *Press Release* (2 June, 2000) via LUKoil email list.

> The true answer to the question of whether it is a lake or a sea is the eternal answer of the thoughtful lawyer: "that depends"[87].

What depends in the Caspian Sea is not whether it is a sea, a lake or an international body of water, but rather the geopolitical and geostrategic outcomes the various actors are seeking. This thesis concurs with conventional wisdom regarding the legal status of the Caspian Sea. It is a unique body of water and should be treated accordingly. It is not a sea, in the strict legal sense, but nevertheless has many qualities of an enclosed or semi enclosed basin, being surrounded by several states that all have common interest in the resources contained within. Nor is it a lake in the traditional sense either, which is an important factor to consider. What is required in the Caspian is not so much a compromise between the supporters of the Law of the Sea or the Condominium, but rather a solution pertinent to the current and future needs of the region.

Accordingly, the thesis supports the view of the Russian Federation that ownership of the Seabed and the Subsoil should be divided according to the equidistance boundaries from the shoreline of each state, but the water itself should fall under the notion of common ownership. Dividing the Caspian Sea in this way will resolve a number of outstanding issues. This will also allow freedom of navigation on the Caspian Sea which would reduce the possibility of confrontation over boundaries by surface vessels. This division allows each political actor to exercise total sovereignty over their respective seabed territory ensuring that exploitation of reserves is still possible. The controversial issue of a trans-Caspian pipeline must then be approved by all parties, which at this stage would be highly unlikely. The proposed trans-Caspian pipeline runs above the sea-bed which means that all parties are involved in its route, capacity and direction. The joint ecological support that will result from this common ownership, would see the entire Caspian Sea becoming the responsibility of all states. This may well result in the formation of a Caspian Environmental Protection Authority to enforce environmentally friendly use of the Caspian's resources.

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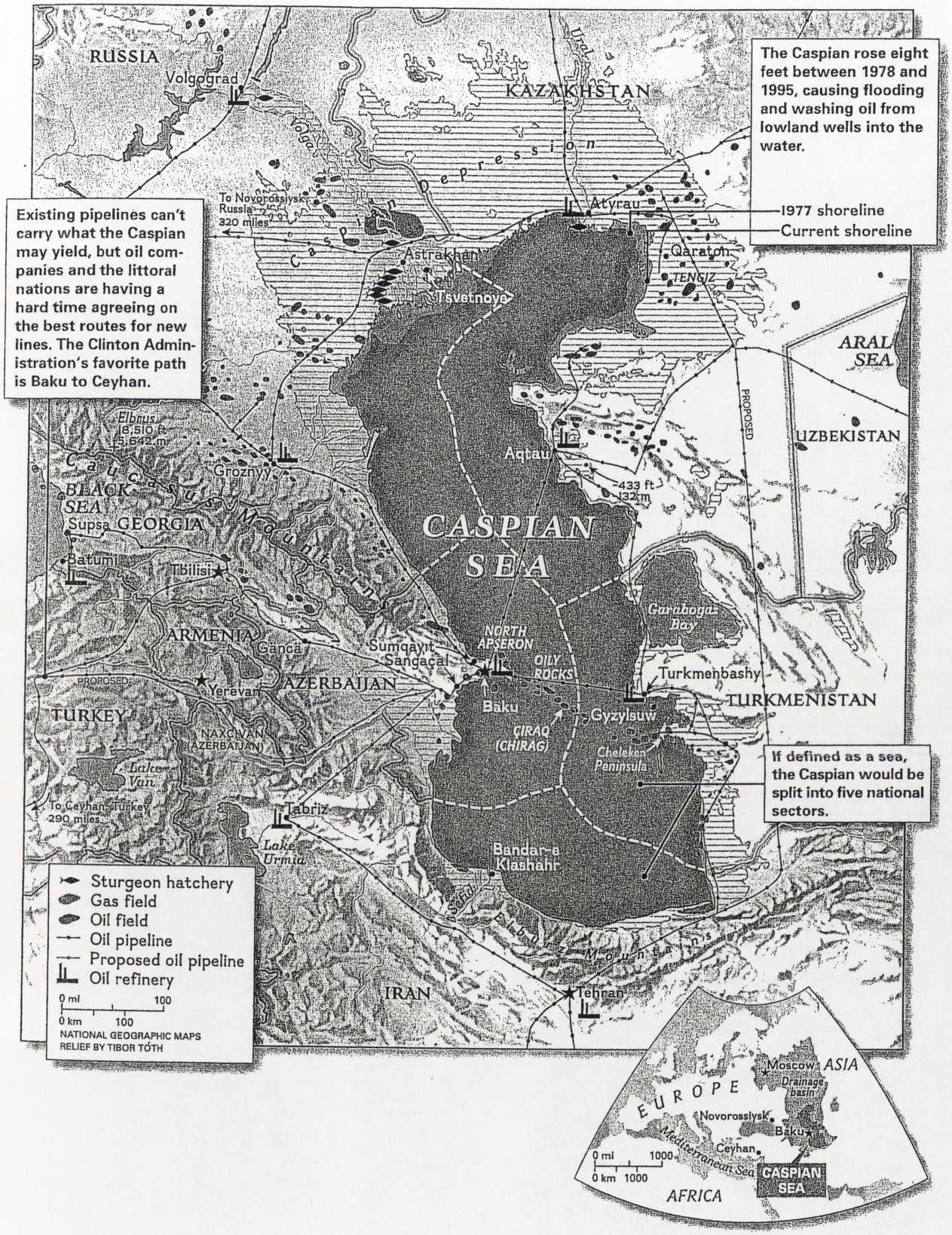
[87] Oxman, op. cit.

In the meantime, however, a resolution to the Caspian Sea's legal status has been delayed and hampered by actors who seek to exploit the region's considerable energy reserves. It is highly probable that resolution to the legal status, and new treaties reinforcing this position, of the Caspian Sea, would have already been concluded, if the energy reserves were not extractable. However, because geopolitical machinations are so prevalent within the Caspian, the outcome of any Caspian Sea treaty will naturally reflect on the aspirations of the many actors involved. The reason for these actions revolves around the importance of oil as an export commodity and as a valuable bargaining tool in inter-actor negotiations. The importance of oil to the region needs to be discussed in order to facilitate the identification of geopolitical and geostrategic implications of energy reserve extraction and exploitation in the Caspian basin.




**The Caspian Sea – Significant Issues affecting future development**[88]

[88] *National Geographic*, Volume 195, Number 5 (May, 1998). p. 13

# Chapter Three

## The Central Importance of Oil

An examination of the history of oil exploration and its exploitative powers is called for in order to understand the significance of the hydrocarbon reserves of the Caspian basin to both the regional and global oil industry. This will be achieved, in part, by referring to the primary developments in the American oil industry and the expansion in world trade in oil, and its derivatives, precipitated by the Caspian's own evolution. The initial development of the Caspian basin, in particular, the oil fields around Baku, led to a number of advancements in upstream, midstream and downstream activities[1]. These developments were a result of both forward lateral thinking and fortuitous circumstances. Therefore an historical overview of the region is obligatory, covering aspects such as the growth and subsequent decline of the Caspian region in both Russian and Soviet periods. This sequential overview is required to highlight the advances, and the setbacks, which occurred during these two periods. An appreciation of the historical significance of the Caspian will enable a more robust discussion regarding the current issues surrounding its energy reserves. This approach will provide the means for a clearer understanding of the geopolitical nature of Caspian energy reserves and its implications upon regional stability, or instability.

There were a number of obstacles that impeded development in the mid-to-late nineteenth century which also continued into the Soviet period. These obstacles have again resurfaced to hinder, and to challenge, contemporary endeavours in exploration and exploitation of Caspian basin energy reserves. Obstacles such as monopoly control on pipeline routes, topographical hindrances in the quest to transport oil, the need for substantial foreign investment in upstream, midstream and downstream activities and praetorian, heavy-handed, and inept local administrations. It is indeed ironic that little has changed in the Caspian region;

[1] The full cycle of commercial utilisation of oil can be divided into three streams. Upstream (exploration and production), Midstream (tankers and pipelines) and Down Stream (refining marketing and distribution).

that these issues have resurfaced is proof of the difficulties involved in Caspian energy development. Difficulties that have been effectively exploited by the various actors involved, often to the detriment of the local populace that are very much dependent upon the success of the divers ventures that seek to harness the Caspian's potential.

### *The History of Oil in the Caspian basin*

With the fragmentation of the Soviet Union, the Caspian Basin is again set to become a significant, player in the geopolitics of energy. As a result of the isolation of the region during the Soviet period, and with the overwhelming importance attached to the Persian Gulf as far as world energy needs are concerned, it is often forgotten that the modern oil industry actually began on the shores of the Caspian Sea, particularly in and around Baku, located on the Absheron peninsula. The Absheron peninsula flows into what is known as the Absheron Sill, an underwater ridge that extends across the width of the Caspian to Turkmenistan[2]. The Sill contains many large oil deposits, as well as a number of sizeable gas deposits, and separates the deeper southern Caspian Sea basin from the more shallow waters in the north.

The Caspian is a region of the world that has a very long history related to the use of hydrocarbons such as oil and gas[3]. Zoroaster[4], the founder of the belief system that later bore his name, is reputed to have visited Baku itself[5], and this may give credence to the notion that the 'eternal fires' of Baku provided an

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[2] Cynthia Croissant, *Azerbaijan, Oil and Geopolitics*, (Comack: Nova Science Publishers Inc, 1998). p. 20.

[3] Other regions include Sumatra, Burma and the historical Hit, on the Euphrates River in ancient Mesopotamia.

[4] Zoroaster is the anglicised form of Zarathushtra; the former is the more correct spelling. There is no agreement on the actual period when the prophet Zarathustra lived, with estimates ranging from 700 BC to 1400 BC. All that is known is that he was born in Persia, and the belief system he instituted contains many themes that are found in other later belief systems such as Judaism, Christianity and Islam. There are 3 main communities of Zoroastrians numbering a few hundred thousand; two in Iran, (Tehran and Yazd), and one in India (Bombay) where they are referred to as Parsees (Persians).

[5] John McLaurin, cited in Bülent Gökay, "History of Oil Development in the Caspian Basin", in Michael Croissant and Bülent Aras (eds.), *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). p. 3.

impetus for the use of fire temples in Zoroastrian belief, including the temple of Surakhani on the Absheron peninsula fuelled by natural gas[6]. Early stories, such as these, are difficult to verify. There are, however, more recent accounts from travellers such as Marco Polo (1271), Giosafat Barbaro (1543), John Cartwright (1600) and Englebert Kampfer (1684), that substantiate the claims that the natural seepage of petroleum products was utilised by the region's inhabitants, as well as traded[7]. It was in the latter part of the nineteenth century that the exploitation of these reserves was to increase substantially, and this coincided with the exploration for oil on the other side of the Atlantic, primarily in the US state of Pennsylvania. It is ironic that the evolution, and subsequent competition, of the oil industries in these two nations (America and Russia), separated by such vast distances, would impact on each other's development. Even more so, that this development in turn would envelop the rest of the world as it was drawn into a bi-polar construct called the cold war.

### *Kerosene & Pennsylvania*

As the industrial revolution progressed in Europe and America, the needs of the factories for a lubricant to combat the incessant friction of machinery was growing. Rising in importance was also the need for another source of illumination, which was at that stage primarily supplied through oil from sperm whales. These needs resulted in the development of a new product, which was a derivative of asphalt; kerosene[8]. There were a number of problems with kerosene, not the least being that there was no real suitable source of supply, nor an extraction method useful in the collection of either asphalt, or crude oil. Some of this supply came from Pennsylvania rock oil, but on a Saturday in August 1859, this was to change. On this day oil was found, not by digging by hand, or by skimming of the top of shallow pools, but by mechanical drilling[9]. A method

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[6] Firouzeh Mostashari, "Development of Caspian Oil in Historical Perspective" in Hoosang Amirahmadi, (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000). p. 89.

[7] Gökay op. cit., pp. 3-6.

[8] Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power,* (New York: Touchstone/Simon and Schuster, 1992). p. 23.

[9] ibid., p. 27.

of discovery, and recovery, was subsequently developed that would usher in the development of a steady source of supply, for industry and consumer alike. In a few short years, by 1862, American kerosene had even reached St. Petersburg in Tsarist Russia[10]. Kerosene had become by the 1870s and 1880s, according to Yergin, the fourth-largest export in value, as well as accounting for over half of American oil output, with Europe being the largest market[11]. While these events were occurring in Pennsylvania, and elsewhere, the Baku region on the west coast of the Caspian Sea, was undergoing a slow transformation.

### *The Rise of Baku & State Control*

In 1813, Tsarist Russia again reconquered the region around Baku, after another war with Persia which subsequently resulted in the Treaty of Gulistan. This treaty confirmed Russia's possession of east and west Georgia and Dagestan, as well as the smaller Khanates of Baku, Shirvan, Gyandzha and Karabakh[12]. As a result of this treaty, all warships were banned from the Caspian, except Russian. Therefore the region, had been an object of struggle between Persian and Russian states for several centuries. Although there were to be a number of conflicts between Russia and Persia after 1813, the former's supremacy in the Caspian was not seriously challenged. In due course, the Tsars laid foundations of a state organised oil industry and, with the appointment of the first Russian viceroy of the Caucasus, Prince Mikhail S. Vorontsov, in 1845, the 'direction-less affair' that was Russia's early administration over the Caucasus was over [13]. It was the events on the other side of the Atlantic however, with the supply of American kerosene to Moscow, that would lead to the reorganisation of the state run monopoly, which in turn propelled the Caspian region, and in particular Baku, into occupying the centre stage of world oil supply by 1900.

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[10] ibid., p. 57.

[11] ibid., p. 56.

[12] Suzanne Goldenberg, *Pride of Small Nations: The Caucasus and Post-Soviet Disorder*, (London: Zed Books, 1994). p. 19.

[13] ibid., p. 22.

In 1737, there were 53 hand-dug wells on the site of the present day Balakhany field, and by 1829, Alexander Von Humboldt reported that there were 82 such wells[14]. On the other side of the Caspian, by 1838, there may have been as many as 3,500 pits and seepage locations[15]. The Russian viceroy of the Caucasus, Vorontsov, reported in 1847, that oil was found at a well drilled at Bibi-Eibat immediately south of Baku. According to the Azerbaijan Academy of Sciences, the first well was drilled in 1848; however, mechanical drilling did not arrive until 1871, when the appropriate technology was imported[16]. The reliance on imported technology was to become a consistent theme in the Caspian basin. Russian technology relied on wooden, not metal tools, which made it difficult to go beyond 300 feet[17]. Nevertheless, production steadily rose, from 41,000 barrels[18] in 1863 to 204,000 in 1870. This five-fold increase in production came from the Baku fields alone[19].

The Russian government between 1813 and 1871, used several different systems in managing the Baku oil fields. The first stage, from 1813 to 1825, saw the government lease the land to contractors, then from 1825 to 1849, the Russian government chose to operate the field on its own, but again reverted to the contractor arrangement until 1871. Perhaps the most telling indictment of the short-sightedness of the administration was that the lease was only for four years in which time the lessee had to dig his wells (by hand) and make a profit[20]. In 1872 the government finally agreed to auction leases publicly. This new approach coincided with the recent arrival of mechanical drilling equipment. A year later Robert Nobel, a Russian citizen of Swedish extraction bought a small

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[14] Cited in Edgar Wesley Owen, *Trek of the Oil Finders: A History of Exploration for Petroleum*, (Tulsa: The American Association of Petroleum Geologists, 1975). p. 3.

[15] ibid.

[16] ibid., p. 4.

[17] Marshall I. Goldman, *The Enigma of Soviet Petroleum* (London: George Allen and Unwin, 1980). p. 19.

[18] A Barrel of oil, as a unit of measure, equals 42 US gallons/35 Imperial gallons, or about 160 litres. The size was the same proclaimed in 1482 by Edward IV as the standard size for packing and selling herring from the North Sea. Yergin, op. cit., p. 796.

[19] Gökay, op. cit., p. 7.

[20] Owen, op. cit., p. 1355.

refinery[21], and by 1876 had sent his first shipment of illuminating oil to St. Petersburg[22]. Along with his brother Ludwig, the Nobels are justifiably credited with 'bringing the Russian oil industry to world prominence'[23].

### *The Obstacle of Transportation*

The arrival of the Nobels, and foreign capital, did not transform the Caspian oil industry overnight. There was one factor that continued to impede the growth of the Caspian oil industry, aside from what Yergin calls the 'corrupt, heavy-handed, and incompetent Tsarist administration'[24]. That factor was the same issue that is affecting current attempts to export Caspian energy reserves; namely, the difficulties associated with transportation. The topography of the Caspian region made it extremely difficult then, as it does now, to transport goods. This, combined with unfavourable weather conditions during the winter months, made the task of delivering crude oil to markets, whether inside the empire, or to Europe, almost impossible. The northern section of the Caspian Sea is very shallow, six metres on average, and freezes over to the point of having pack ice covering it by January[25]. As Yergin mentions, 'Even parts of the [Tsarist] empire were inaccessible; in the city of Tiflis, it was cheaper to import kerosene from America, 8,000 miles away than from Baku, 341 miles to the west'[26]. In order to achieve a level of profitability, and to undercut the American product, the process of transporting Caspian kerosene, and later crude oil, by

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[21] He was sent originally to search the region in order to obtain a steady supply of Russian walnut in response to a large rifle contract with the Tsarist empire that the Nobel family had secured.

[22] Yergin, op. cit., p. 58.

[23] Owen, loc. cit. For a more in-depth account of the impact that the Nobels had on the oil industry see; Robert W. Toft, *The Russian Rockefellers The Saga of the Nobel Family and the Russian Oil Industry* (Stanford: Hoover Institution Press, 1976).

[24] Yergin, loc. cit.

[25] Levent Hekimoğlu, "Caspian Oil and the Environment: Curse or Cure ?", in Michael Croissant and Bülent Aras (eds.). *Oil and Geopolitics in the Caspian Sea Region*, (Westport: Praeger, 1999). p. 84.

[26] ibid., p. 60.

sheer economic necessity had to be improved. The novel solution that Ludwig Nobel introduced, quite simply revolutionised the oil industry[27].

### *Tankers and Pipelines*

The idea was simple: instead of shipping the oil in individual wooden barrels, which were already prohibitively expensive, and then transferring them onto barges at Astrakhan, at the mouth of the Volga in the north of the Caspian Sea, the Nobels developed the technique of shipping oil in bulk - thus the oil tanker was born. In 1877, the *Zoroaster*, the world's first bulk oil tanker, was put into service on the Caspian Sea[28]. By the mid-1880s, the concept of transporting in bulk was being used also to service the Atlantic Sea route. In time the use of bulk carriers became common-place. What started out as a local improvement in the Caspian industry, that Ludwig Nobel freely offered to the oil industry, became an avenue for Marcus Samuel to use, in 1892, to undermine the then world leader Standard oil. The voyage of Samuel's own tanker, the *Murex*, from England to Batum (Batumi) then onward through the Suez canal[29] to Singapore and Bangkok was the first use of a bulk carrier outside the Caspian. In 1895, a total of 69 tanker passages had been made through the Suez Canal and all, but four, were owned or chartered by Samuel, and in 1902, 90 percent of tankers that were to pass through the Suez canal belonged to Samuel[30]. The importance that bulk transportation has had on the economy of the world cannot be emphasised enough. In 1989, oil tankers accounted for 38.4 percent of world shipping, carrying 37 percent of all seaborne cargoes[31]. This translated, in 1995, to almost 900 million tonnes of crude oil and 205 million for petroleum products, of which an estimated 325 million went to the US and Canada, 220 million to Japan and

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[27] Goulishambarov is reputed to have said that "The successful solution of this difficult problem was entirely Ludwig Nobel." cited in Toft, ibid., p. 54.

[28] Gökay, op. cit., p. 9.

[29] Opened in 1869 the Suez Canal cut an estimated 4,000 miles of the journey to South-East Asia from Western Europe.

[30] Yergin, op. cit., p. 70.

[31] *Philip's Encyclopaedic Atlas (2nd Edition)* (London: George Philip, 1993). p. 29.

325 million to Europe[32]. Shipping, in particular oil tankers, is now vital to the world economy.

This advancement in transportation through the use of bulk tankers, enabled the Nobels to dominate the delivery route through the Volga and Don. This naturally did not suit all of the producers who did not, or could not, afford to go the path of using bulk carriers, therefore another route needed to be developed. The only option was to go overland, to the Black Sea - no mean feat given the rugged and difficult terrain. Government approval was given to other producers to build a railroad from Baku to the Black Sea. However, because of a sudden drop in oil prices, the original backers of this project ran out of money, which allowed another European family to enter the Caspian oil industry - the Rothschilds. In 1883, the railroad from Baku to the Black Sea port of Batumi was completed[33]. Exports from Batumi were 3,300 tons in 1882[34], this figure reached 24,500 tons the following year, and 65,000 tons in 1884[35]. The railroad to the port of Batumi allowed Caspian oil to be exported to the West, and by 1892, East Asia[36]. By 1897, Russian oil exports to Asia accounted for 38 percent of its exports, compared to 16 percent for the Americans[37].

Another achievement, although not unique to the Caspian, was the building of pipelines, a factor that features prominently in the current discussion on Caspian energy reserves[38]. Robert and Ludwig Nobel, with the aid of 400 tons of dynamite supplied by their brother Alfred, built a pipeline to overcome a

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[32] Eric Grove, "The Security of Shipping: The Global Perspective" in Sam Bateman and Stephen Bates, (eds.). "Shipping and Regional Security" *Canberra Papers on Defence and Strategy* (Canberra; Australian National University Strategic and Defence Studies Centre, 1998). p.2.

[33] Yergin op. cit., p. 61.

[34] Along with the use of barrels per day (bpd), the metric ton is also used (predominantly in Europe) as a production measurement. One metric ton equates to approximately 7.3 barrels (1,185 litres). One barrel is about 160 litres.

[35] Goldman, op. cit., p. 17.

[36] Yergin, op. cit., pp. 65-70.

[37] Goldman, loc. cit.

[38] The first use of pipelines, which were wooden, is reported in 1866. Yergin, op. cit., p. 33.

bottleneck in the Baku-Batumi railroad. This bottleneck was in the form of a 3,000-foot high peak within the Caucasus mountain range[39]. Great as the railroad was, only a limited number of box cars filled with oil could be taken over this peak in the range at any one time. In 1889, as the Nobels completed the 42-mile pipeline, they encountered another problem; finding new markets for an ever-increasing quantity of oil. Fortunately the advent of the internal combustion engine was just around the corner. Important as the external market might have been, exorbitant taxes, 1,000 percent on pipeline shipments, and 1,200 percent on rail carriage, severely inhibited the exports of Caspian products. Nevertheless, between 1900-1913, an average of twelve percent of the crude produced, (approximately 10 million barrels) per year was exported this way[40]. The pipeline between Baku to Batumi, built in 1905 by the Rothschilds, also contributed to enhancing the limited export potential of Caspian oil[41].

### *Growing Importance of the Caspian*

The impact of pioneers, such as the Nobels, Rothschilds, Samuels and others, whilst very important often diminishes the significant role that leading Russian officials and entrepreneurs contributed to the early exploration and exploitation of Caspian oil. Individuals such as Kokorev and Gubonin, who built the first factory for manufacturing paraffin, and later kerosene, near Baku in 1859, Malikov, who constructed the first distillation machine in 1863, and government officials like Mendeleyev, were instrumental in abolishing the inadequate contract system[42]. Annual Russian production increased nearly five-fold in the seven years between 1863 (41,000 barrels), and 1870 (204,000 barrels)[43]. According to Owen, production reached over 34 million barrels by 1891[44]. A few years later in 1898, Russia became the number one oil producer in the world, a position it held until 1902, just as the giant Californian fields were being

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[39] ibid., p. 62.

[40] Owen, op. cit., pp. 1356-1357.

[41] Gökay, op. cit., p. 10.

[42] ibid., p. 7.

[43] ibid.

[44] Owen, op. cit., p. 1357.

developed. Production peaked at 85,168,000 barrels in 1901, with all, but 4 million barrels, coming from Baku[45]. In the decade, 1891-1900, output of oil, according to Nove, 'kept pace with that of the United States, and in fact in 1900 Russia's oil production was the highest in the world, being slightly ahead of America's'[46].

In 1901, Russian oil, from 1,900 wells, in a six square mile region in the Caucasus, supplied over fifty percent of the world's needs, and a staggering 95 percent came from the Absheron peninsula[47]. Whilst the overwhelming majority of oil was found in and around Baku, other places, such as Grozny in the North Caucasus also shared in the good fortune. There the first well was drilled in 1893, and by 1910, production was approximately 8.8 million barrels, a significant quantity[48]. Oil from the Caspian was to provide the bulk of Russian and later Soviet oil until other fields in the Urals-Volga region were discovered in the 1940s.

**Table 3.1** ***Percentage of Azerbaijan Crude for Total Soviet Production***[49]

| Year | Amount |
|---|---|
| 1930 | 57% |
| 1940 | 71% |
| 1950 | 39% |
| 1960 | 12% |
| 1970 | 6% |
| 1975 | 3% |
| 1980 | 3% |

[45] ibid.

[46] Alec Nove, *An Economic History of the USSR, (2nd Edition)*, (London: Penguin Books, 1989). p. 3.

[47] Gökay, op. cit., p. 8.

[48] ibid., p. 10.

[49] Cynthia Croissant, op. cit., p. 22.

### *The First Decline of the Caspian (1902-1928)*

The Caspian lost its primary position in oil production, not just because of the ever increasing oil production in the US and later the rise of the Middle East, but also because of the growing political and social unrest in the region itself, which was further compounded by the rather primitive technological methods employed in oil extraction. In fifteen short years from 1901, oil production had quadrupled in the US, reaching 40 million tons by 1915, whereas in Russia, production had essentially stagnated in the same period, dropping to 8 million tons in 1905, and hovering just above 10 million tons in 1915, with exports amounting to a mere 78 thousand tons[50]. The growing disquiet stemmed from a number of factors not the least being poor economic conditions for the workers[51]. It also provided a young failed Seminary student, Joseph Vissarionovich Dzhugashvili, an opportunity to promote Lenin and Bolshevism, amongst the growing civil agitation, in both T'Bilisi and Baku[52]. This student was later to be known as Joseph Stalin.

The unrest was also a response to the oppression from the Tsarist regime, which resulted in an almost never-ending series of strikes and ethnically based violence[53]. Strikes were reported in 1901-2 in Batumi, followed by the oil worker strike of July 1903, then strikes again in 1904, 1905 and 1907[54]. Whilst this unrest was occurring, there was also the constitutional crisis of 1905-6, and the ill-advised Russo-Japan war of 1904-5. The protests and riots in Batumi and Baku were in part ethnically motivated, and that issue, along with energy reserves, continues to dominate the Caucasus and Northern Caucasus region today. Baku, at this time, also had a growing urban population that contributed

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[50] Figures from Table 2.1 Early Russian and American Oil Production and Exports in Goldman, op. cit., pp.14-15.

[51] For a more detailed analysis of the strikes in Georgia at this time see: Ronald Grigor Suny. *The Making of the Georgian Nation (2nd Edition)* (Bloomington: Indiana University Press, 1994). pp. 161-164.

[52] Goldenberg, op. cit., pp. 25-26.

[53] According to Goldenberg, employment in the oil industry was a reflection of ownership which worked against the local Azerbaijan population who were relegated to the unskilled work, whereas the Armenians, and others, took the more skilled positions. ibid. p. 28.

[54] ibid., p. 20.

to social tensions. In 1913 it was reported that the urban population in Azerbaijan was 24 percent, the highest in the empire and during the 1920s-30s, the urban population rose to 36.1 percent[55]. Part of the reason for this increased social and economic tension, was that prior to the oil boom the region was the least urbanised of all the Caucasus[56].

The importance of Baku began to diminish during this period for a number of factors, one of which reflected on the inappropriate drilling equipment and techniques used. A large number of wells were shallow, so the full extent of the reserves could not be exploited. The use of inappropriate techniques also resulted in excessive waste, as well as decreased supply potential[57]. Baku was also declining in significance because of the rising importance of other fields within the Soviet Union such as Grozny, Emba on the north shore of the Caspian Sea, and Maikop near the Black Sea[58]. These last two factors, inappropriate techniques and emerging new fields, are primarily why the Caspian basin decreased in importance. It was not so much because it was thought the fields were drying up, which was widely perceived but never really proven, but because the newly discovered fields were initially closer to the populous western regions of Russia. This meant that transportation hurdles were less of an issue, and therefore access to the product was much easier. This logic regarding the limited life expectancy of the Caspian oil fields was followed through into the Soviet period of exploration.

### *The Role of Caspian Oil in the Soviet Union*

Russian, and later Soviet society, was characterised by a relatively low level standard of living, which in turn resulted in a lower per capita use of oil and petroleum products, when compared with other countries. As Goldman points

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[55] Cynthia Croissant, op. cit., pp. 20-21.

[56] Goldenberg, op. cit., p. 27.

[57] Yergin relates that Baku was characterised by a series of extraordinary oil fountains or gushers. "One called Droozba/Droozhba (Friendship) gushed for five months at the rate of 43,000 barrels a day, most of it wasted". Yergin, op. cit., p. 61.

[58] Goldman, op. cit., p. 19.

out, 'In the late nineteenth century, Russian consumption of kerosene was one-half of that in Germany'[59]. This antipathy to oil continued during the Soviet Union as Jones mentions that,

> the early industrial structure of the USSR was not oil orientated, coal and ignite being the preferred industrial fuel and coal fired railways the predominate system of long-distance land transportation[60].

It was not until the 1950s that the Soviet Union moved to embrace oil and gas as the principle source of energy[61]. Since domestic productive capacity continued to exceed domestic petroleum needs, the use of oil, especially after the advent of the internal combustion engine, as a valuable export earner was almost assured and readily exploited.

The role of oil in the Soviet Union remained essentially the same as under the Tsars. It was viewed as a cash commodity, not as significant as grain, but still important. Before the revolution, grain accounted for 50 to 70 percent of all export earnings between 1895 and 1914[62]. Russia at the turn of the century, as in the early days of the Soviet state, had an agricultural economy. The industrial revolution that began in 1770, in the mills of England, did not reach Russia until the early 1880s, and only then in a limited fashion[63]. Significant industrial advancement only really occurred after the end of the civil war in 1921, with the consolidation of power by Lenin and the Bolsheviks. However, even with the crash industrialisation, instituted by Stalin, it was not until 1929, that oil production began to recoup the losses from the previous 27 years of seemingly continued stagnation and mayhem. In that year, production finally surpassed the

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[59] ibid., p. 17.

[60] Peter Ellis Jones, *Oil A practical guide to the economics of world petroleum*, (Cambridge: Woodhead-Faulkner, 1988). p. 258.

[61] Goldman., op. cit., pp. 49-50.

[62] ibid., p. 21.

[63] For a more detailed discussion on Russian industrialisation during this period see: Edward Acton, *Russia The Tsarist and Russian Legacy, (2nd Edition)*, (London: Longman, 1995), pp. 93-119.

1901 figure with 13,684,000 metric tons produced[64], and by 1932, petroleum accounted for 18 percent of foreign earnings[65]. Important as this may seem, oil did not transcend the income earned from either grain or timber exports for some time.

The Nazi invasion during World War II, and the destruction of many Soviet oil wells in the north Caucasus region, also encouraged the development of other fields. Although often not cited, the spectre of another invasion would have contributed to the eventual down-grading of the Caspian region. Regardless, it provided an incentive for oil exploration in other parts of the Soviet Union[66]. In both world wars, the oil fields around Baku and Grozny were seen as geostrategic objectives for a number of actors, including the English[67]. In 1941, Soviet oil production peaked at 31 millions tons[68], of which over 25 million came from Azerbaijan[69]. Ironically contributing to this was the Nazi-Soviet Pact. In 1940, exports of oil to Nazi Germany accounted for 657,000 tons, 75 percent of all Soviet petroleum exports[70]. The Nazi occupation of Grozny resulted in a significant decline in oil production from Azerbaijan. Although Grozny is some 300 miles to the north from Baku, the main pipelines than, as they do now, ran north through the city itself. This restricted supply to the Soviet war machine, which in turn considerably hampered the Soviet response to the Nazi advance. The results of this saw oil production in Azerbaijan fall to 15.8 million tons in

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[64] Goldman, op. cit., p. 22.

[65] ibid., p.31.

[66] Jones, loc. cit.

[67] See Jamil Hassanov, "The Struggle for Azerbaijani Oil at the end of the First World War". *Caspian Crossroads Magazine*, Volume 2, Number 4, (Spring, 1997), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98]; also see Nigyar Maxwell, "The Oil Issue in the Policy of Azerbaijan's Government in 1918-1920" *Caspian Crossroads Magazine* Volume 2, Number 3, (Winter, 1997), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

[68] Goldman, op. cit., p. 33.

[69] Cynthia Croissant, op. cit., p. 21.

[70] Goldman, op. cit., p. 26.

1942, then 12.6 million in 1943, 11.8 million in 1944 and 10.4 million in 1945[71]. This trend was never reversed during the remaining days of the Soviet Union.

### *Soviet Methods of Oil Exploration & The Second Decline of the Caspian*

The decrease in oil output from the Caspian basin was not necessarily a reduction in production *per se*. It happened because other fields such as the Volga-Urals were coming on line by the late 1940s and early 1950s. In 1960, oil was found on the river Konda approximately 500 miles east of Perm' and in 1965, a giant field was discovered a further 500 miles to the east of this[72]. The decline of the importance of Caspian oil was further exacerbated with the discovery of oil in Siberia in the 1960s. The Volga-Urals fields, the 'Second Baku' as it was referred to, was originally discovered in 1932, but its development was delayed because of a 'shortage of proper drilling equipment'[73]. Olaf Caroe says that oil production in this region, along with other related heavy industries was developed 'largely by the use of Kazak unskilled labour[74]. The issue of inadequate drilling technology had first appeared in the Caspian during the nineteenth century. Combined with inflexible Soviet planning methods, this obstacle continued to plague Soviet oil exploration and production, until the very end of the USSR itself.

There were many concerns about Soviet exploration techniques, especially the focus on quantity rather than quality, hence the many shallow wells drilled that were unproductive. It was reported that in parts of Kazakstan the land was 'becoming increasingly pitted with shallow exploratory holes drilled in incessant pursuit of a larger number of total metres drilled'[75]. Guided by the State Planning Authority (Gosplan), as well as the Ministry of Geology, who used as a

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[71] Figures from Table 4, Oil Output in Azerbaijan During the Second World War. Cynthia Croissant, loc. cit.

[72] Goldman, op. cit., p. 35.

[73] ibid., p. 30.

[74] Olaf Caroe, *Soviet Empire The Turks of Central Asia and Stalinism,* (London: Macmillian and Co Ltd, 1967). p. 190.

[75] Goldman, op. cit., p. 46.

benchmark the total number of metres drilled, Soviet prospectors soon realised that the deeper they dug the less likely they were to meet their planned targets. Hence the more shallow exploratory wells drilled, the better. The target would be met and the bonus paid, whether anything was found or not. In 1978 an article appeared in *Pravda* stating that 'Deep drilling means reducing the speed of the work and reducing the group's bonuses'[76]. This was part symptomatic of the Soviet oil industry, and because drilling technology was years behind the rest of the world. Because of the many years of this insidious practice there is speculation that some of these wells may actually lead to reserves, only much deeper down.

According to the CIA, it took more than a year for a Soviet driller to drill 3,000 metres, five times longer than the world average[77]. This is because Soviet drill bit quality was below world standard, as was the quality of steel pipe used in the process. The reason for this inordinate time frame was twofold. Firstly, the Soviet drillers tended to spend approximately 85 percent of their time unproductively. Most of the time was wasted frequently withdrawing the pipe-string to replace the drill bit and then to reinsert. This occurred because of the second reason: Soviet steel pipe and the drill bit, turbo or otherwise, simply did not last long enough, the quality of workmanship was lacking. To help overcome the second obstacle, the Soviet Union began to import higher quality steel pipe for use in drilling, and also for use in the vast oil and gas pipeline system across the republics. In all fairness to the Soviets it was not uncommon, and still is the case today, to import steel for pipelines, as the US imported Japanese steel for its Alaskan pipeline project[78]. As well as importing higher grade steel than could be produced through Soviet production processes, the Soviets also began to build several 'foreign high-grade steel factories with the hope of solving their steel quality deficiency'[79].

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[76] *Pravda*, 27 January 1978, cited in Goldman, ibid.

[77] ibid., pp. 41-42.

[78] Goldman, loc. cit.

[79] ibid.

### *Glavtransneft*

The continual moving of the epicentre of Soviet energy production, coupled with the demands of a command economy resulted in the building of the pipeline network known as *Glavtransneft.* The system consisted of over 65,000 kilometres of primary lines, 400 pump stations and a capacity of 600 million tons per year[80]. Although a prime example of the Soviet economic model even with the demise of the Soviet Union, which gave the republics ownership of pipelines within their borders, the now privatised Russian successor company *Transneft* still has considerable power to limit or even cut off oil exports from various regions of the former USSR. *Glavtransneft*, as a pipeline system, was built to cater to the Soviet command economy, shipping oil to various locations within the Soviet Union, or to the satellite states in eastern Europe. As a result, the pipeline direction that *Transneft* inherited is not suitable, in the main, for the exporting of Caspian basin reserves. The Baku-Grozny line for example actually flows south from Grozny to Baku. It is the very existence of *Transneft*, and its original function, to be an internal distributor of energy reserves which has necessitated the requirement to build new, and more reliable export orientated pipeline routes. There is another factor, often overlooked, when discussing the *Transneft* system. Russia still produces vast amounts of oil, as well as natural gas, and needs the pipeline system for its own use. Within the Caspian region there are five major sections of the *Transneft* system, linking Russia, Kazakstan, Turkmenistan, Azerbaijan and Georgia together[81].

1. 1,900-mile pipeline linking Omsk (Russia) - Pavlodar (Kazakstan) - Chimkent (Kazakstan) - Chardzhou (Turkmenistan).
2. 2,200-mile pipeline linking Novorossiysk (Russia) - Grozny (Chechnya/Russia) - Atyraū (Kazakstan) - Tengiz (Kazakstan) - Aktau (Kazakstan).

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[80] Richard H. Matzke, "Pipelines to Progress: FSU Oil exports Past, Present, Future", *National Association of Petroleum Investment Analysts* (21 May 1997) at www.chevron.com/chevron_root/newsvs/speeches/1997/97-5-21-matzke.html [26/12/1998].

[81] Table 4.2 Existing and proposed Oil Pipelines. Geoffrey Kemp and Robert E. Harkavy. *Strategic Geography and the Changing Middle East*, (Carnegie Endowment for International Peace/ Brookings Institution Press: Washington, 1997). p. 140.

3. 900-mile pipeline linking Novorossiysk (Russia) - Grozny (Chechnya/Russia) - Baku (Azerbaijan).
4. 600-mile pipeline linking Batumi (Georgia) - Baku (Azerbaijan).
5. 600-mile pipeline linking Atyraū (Kazakstan) - Samara (Russia).

### *Tengiz*

It would be appropriate at this juncture to mention the Tengiz field in Kazakstan, which may serve as a quintessential case study of energy development in the Caspian region during the Soviet period. Tengiz is a hydrocarbon deposit that is deemed to be a giant field at approximately 200 square miles in size, and as mentioned in Chapter two, is located a short distance inland from the Caspian Sea in the western Kazakstan oblast of Atyraū. It was initially discovered in the 1960s, and the Soviet Union had already embarked on some preliminary development of the field in the 1980s[82]. However the Soviets were hampered, by their own command-administrative system. Soviet attempts at increased exploitation of the Tengiz field in the 1980s resulted in 60 wells producing about three million tons of oil per year by 1990[83]. Tengiz crude, which is rated at 47-degree API gravity[84], which is much higher than Russian/Soviet oil, lies however, very deep, along with a high hydrogen-sulphide and mercaptan content. Because of the mercaptan level the Soviets required Western technology, to remove the mercaptans and de-sulphurise the crude, in order to fully exploit the significant reserves[85]. In order to overcome these obstacles, of depth and mercaptan content, Gorbachev, in 1988, quietly instigated negotiations with Chevron for an infusion of foreign capital and expertise[86].

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[82] ibid., p. 139.

[83] Vladimir Babek, "Kazakstan: Big Politics Around Big Oil" in Michael Croissant and Bülent Aras, (eds.). *Oil and Geopolitics in the Caspian Sea Region*, (Westport: Praeger, 1999). p. 194.

[84] API Gravity is the conventional method of expressing the gravity of crude oils. It is an arbitrary scale adopted by the American Petroleum Institute. As each crude oil has its own unique characteristics and is given an API degree rating in relation to its specific gravity compared to that of water. On the API scale, water is given a 10 Degree API rating. The higher the degree, the lighter is the crude oil.

[85] Rosemarie Forsythe, *The Politics of Oil in the Caucasus and Central Asia*, (London: Oxford University Press, 1996). p. 37.

[86] Babek, loc. cit.

The impasse with the Tengiz field, which was producing a commendable quantity, as well as quality of crude, yet could not improve without foreign capital and technology, is a clear example of the torpid nature that was the Soviet oil industry in the final years of the USSR[87]. These are the same obstacles that were repeatedly encountered during the development of other fields in the Soviet Union. How many other fields in the Former Soviet Union (FSU) need an injection of capital and expertise because Soviet technology had reached its limits ? Seeing that Soviet technology was incapable of adequately exploring and exploiting potential fields, a question arises as to how much oil and gas is literally just sitting there, just beyond the reach of dated Soviet technology, but not beyond the reach of foreign companies with the technology and the capital resources ?

### *Oil Production in the USSR*

If Tengiz is any indication, it would appear that any future growth in the Soviet oil industry would have been dependent on foreign investment and knowledge. Aside from continued exploration advances in technology resulted in a down turn in real terms. The last official Soviet statistics covering the first nine months of 1991, showed that oil production had fallen by nine percent[88]. In fact planned petroleum production had failed to achieve production targets as table 3.2 clearly demonstrates;

**Table 3.2** ***Soviet Oil Production: Real and Planned 1965-1985***[89]

| | **1965** | **1970** | **1975** | **1980** | **1985** | **1986** | **1987** |
|---|---|---|---|---|---|---|---|
| **Oil (Actual) Million Tons** | 243 | 353 | 491 | 604 | 595 | 610 | 624 |
| **Oil (Planned) Million Tons** | - | 350 | 505 | 640 | 632 | - | - |

[87] For detailed description of the need for foreign expertise in moving a focus of the then Soviet oil industry to offshore locations in the Caspian basin see; Stephen Lewarne, *Soviet Oil The Move Offshore*, (Colorado: Westview Press, 1988). pp. 63-78.

[88] Hooman Peimani, *Regional Security and the Future of Central Asia: The Competition of Iran, Turkey and Russia* (Connecticut: Praeger, 1998). p. 92.

[89] Nove, op. cit., pp. 370-371 and Table 2.1 USSR Petroleum Production (1960-1987), Lewarne, op. cit., p. 11.

As oil output began to stagnate, and world prices began to fall once again, this led to a sharp drop in Soviet hard currency earnings[90]. In an economy that was so dependent on oil, and to a lesser extent gas exports, for its hard currency exports, the eventual outcome were simply academic. This reliance on crude oil as a hard currency earner has continued for the Russian Federation. According to Jaffe and Manning, in 1996, Russian Federation oil exports alone generated some $16.1 Billion dollars, some 20 percent of total revenue export[91]. Lewarne states that during the Soviet period, resources required to produce oil were almost twice as high as for coal and gas[92]. In spite of this cost imbalance the Soviets allowed 20 billion cubic metres of natural gas to be flared in 1975, telling inditement of the predilection for oil as a cash crop during the Soviet period. This was a common occurrence in emerging industrial economies, and was also practiced by Iran and Saudi Arabia, but as Goldman rightly states 'industrialisation [was] a prime goal, therefore their flaring was extremely wasteful'[93].

Driven by a command economy that relied on hydrocarbons as means to fund industrialisation, the Soviet Union had reached a pivotal juncture in 1987, when Gorbachev wrote *Perestroika* (restructuring)[94]. Part of the *novoe myshlenie* (new thinking), that Gorbachev allowed was to invite foreign MNCs to develop what the Soviet Union could not. This invitation was a result of *glasnost* (openness), and the realisation that expansion of the hydrocarbon industry could only advance with the aid of foreign capital and expertise. This necessity has continued for the republics of Kazakstan and Azerbaijan, and to a lesser extent Turkmenistan. The desire to develop Caspian hydrocarbon reserves has however come at a high cost for these republics, and is the focus of the final chapter.

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[90] Nove, ibid., 378.

[91] Amy Meyers Jaffe and Robert A. Manning, "The Shocks of a World of Cheap Oil", *Foreign Affairs* Volume 79, Number 1 (January/February, 2000), p. 22.

[92] Lewarne, op. cit., p. 14.

[93] Goldman, loc. cit.

[94] Mikhail Gorbachev, *Perestroika* (London: William Collins, 1987).

# Chapter Four

# The Routes and the Implications

## *The Routes*

Thus far this thesis has commented upon, and examined, a number of important components intrinsic to understanding the Caspian; the vexed issue of exactly how much oil there is, the unique geography of the region, environmental consequences directly related to energy reserve exploration, the effects of monoculture and the legal status of the Caspian Sea. In order to correctly identify implications from exploitation and extraction, this thesis provided an overview of the importance of hydrocarbon reserves, in particular oil, to the Caspian, including both the methods utilised to extract and to transport the product, as well as the importance of oil as a hard currency earner for both the Tsarist and Soviet regimes. Central to this work has been the understanding that the many and varied contemporaneous issues directly related to the Caspian, such as those discussed in this work can only effectively be viewed through the dual prism of geopolitics and geostrategy.

At the outset it was stated that;

> The purpose of this paper is to illustrate the implications and subsequent ramifications of the exploitation and extraction of energy reserves from the Caspian basin. It is this work's contention that the ramifications are primarily of a geopolitical and geostrategic nature that have, in the first place, affected the littoral states of the Caspian Sea: Kazakstan, Turkmenistan, Azerbaijan, Iran and the Russian Federation and primarily the first three Former Soviet Republics.

The purpose of this chapter is to identify those implications, based upon the discourse of the preceding chapters. In order to support this outcome, this thesis will examine the main transit corridors that are, or intend to be, used for the transportation of Caspian energy reserves. Individual actors involvement will be

addressed, relevant to the pipeline route under discussion. This approach is valid because the pipelines, real or imagined, have provided the catalyst for geopolitical manoeuvring from actors whose interests are found in the direction they will eventually take. It is worth remembering that the debate about possible routes is, as Olcott says, 'not so much about the best routes as much as it is about least worst routes'[1].

There are several transportation routes relevant to exporting Caspian basin energy reserves, and of this number, a few are mere 'pipe-dreams'. The main transport routes have been designated, by some, as the Northern (via, but not to, Russia), Southern (via Iran), and Central (via the Caucasus) options[2]. Of these only the Central and Northern options are currently inuse.

These options are however, too narrow when seeking to consider the geopolitical and geostrategic issues associated with Caspian basin energy reserves. There are a number of other options being touted including; South-West (via Turkey), South-East (via Afghanistan), Western (via China), North-Western 'A' (via Ukraine), and North-Western 'B' (via Bulgaria), as well as other transportation variants such as oil swaps and shipping via rail and barge. A purely northern route for exporting product to Russia is not economically feasible due to Russia's own abundant hydrocarbon reserves, and limited pipeline capacity.

It is only, however, the Northern and Central options, and shipping via rail, as well as a number of oil swaps, that are currently being utilised by countries such as Azerbaijan and Kazakstan. The other options are either, mere pipe-dreams such as Ukraine and Bulgaria, not currently feasible due to external geopolitical pressure; Iran and Afghanistan[3], or yet to be actually constructed; Turkey and

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[1] Martha Brill Olcott, "Oil and Politics in Kazakhstan" *Caspian Crossroads Magazine*, Volume 1, Number 1, (Winter 1995) at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

[2] John Roberts, *Caspian Pipelines* (London: Royal Institute of International Affairs, 1996), p. 3.

[33] A very recent publication from Ahmed Rashid devotes three chapters to the possibility of a pipeline extending south through Taliban controlled Afghanistan, see: Ahmed Rashid, *Taliban: Islam, Oil and the New Great Game in Central Asia* (London: I. B. Tauris, 2000). pp. 143-182.

China. However the Turkish option needs to be examined in detail as it presents a salient example of geopolitical pressure.

The question is further complicated by the fact that there are also multiple options in termination, or options for delivery post-termination, in particular product loaded at Novorossiysk and Supsa, and it is important to consider how these may affect other possible pipeline choices. The corridors that merit discussion which have an immediate impact on the region are Tengiz-Novorossiysk and Baku-Supsa/Novorossiysk. Routes that involve tanker transportation via the Black Sea currently have three possible exit options, Odessa (Ukraine), Burgas (Bulgaria) or via the Bosphorus Straits. Should Ukraine actually build its long discussed pipeline from Odessa to Brody, then this will have a very substantial impact on actors such as Russia and Turkey. The notion of tanker transfers at Burgas have again resurfaced, this time with a pipeline terminating in the Adriatic Sea at Vlore (Albania). The likelihood of this proposed pipeline coming to fruition is however improbable. As with other pipeline discussions the question of who is going to pay for such a project and the signing of a Memorandum of Understanding (MOU) can be mutually exclusive.

An assessment of the Bosphorus choke-point[4] is obligatory, as transporting product, from the Novorossiysk and Supsa corridors south through this exceedingly narrow and highly congested waterway has significant geostrategic implications. A discussion about the proposed Baku-T'bilisi-Ceyhan as the Main Export Pipeline (MEP) must be undertaken, as this will impact on Bosphorus tanker traffic and on Azerbaijan and Georgia.

[4] The Bosphorus is but one of several narrow shipping lanes with a potential for closure (choke-point) that in 1998 saw a combined total of 30 million barrels a day pass through them. Other choke-points include Bab el-Mandeb, near Djibouti, the Panama Canal, Strait of Hormuz, Strait of Malacca and the Suez Canal. A choke-point is not restricted to a waterway, the Sumed pipeline in Egypt is also choke-point, as are a number of Russian pipelines because they are operating a maximum capacity. "World Oil Chokepoints" (August 1999) *United States Energy Information Administration*, at www.eia.doe.gov/emeu/cabs/choke.html [11/12/2000].

## Tengiz-Novorossiysk

As mentioned previously the Tengiz field is considered to be the largest field that has been discovered in recent times, and development of this field could not have occurred without the injection of vast sums of foreign capital. It is now more than ten years since Gorbachev initially invited Chevron to participate in exploiting this field. The past decade has shown how uncertain energy exploration in the FSU can be, with numerous obstacles placed in front of MNCs, and in Chevron's case, from both the Kazak and Russian governments in regards to exploiting and extracting product from the Tengiz field. From the outset the Tengiz project was ambitious. Richard Matzke described Tengiz as "Chevron's biggest and most important project since the opening of Saudi Arabia about 50 years ago"[5]. To fully exploit this field Chevron is involved in two parallel projects: Tengizchevroil, which is the consortium seeking to extract the reserves, and the Caspian Pipeline Company which is responsible for the upgrade and the building of a new pipeline from Tengiz to Novorossiysk, as well as new terminal facilities. Discussion of consortium participants demonstrates the fluidity of energy reserve exploration in the Caspian, and the pressure that various actors can apply to achieve their aims.

## Tengizchevroil and the Caspian Pipeline Company (CPC)

In April 1993 Kazakstan and Chevron formally signed an agreement to create what was to become Tengizchevroil (TCO) joint venture[6]. In order to ship Tengiz crude to the Black Sea a new pipeline infrastructure was required as well as upgrading parts of the existing Russian pipeline. The Caspian Pipeline Company (CPC) was established to build a 1,580 kilometre pipeline from Tengiz to Novorossiysk Marine Terminal-2. A new pipeline is to be built between Komsomolskaya and the new Marine Terminal at Novorossiysk, as well as refurbishment of exisiting pipeline between Tengiz and Komsomolskaya. Originally a joint-venture agreement was signed in 1992, between Kazakstan and

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[5] Cited in Robert V. Barylski, "Russia, the West, and the Caspian Energy Hub" *The Middle East Journal* Volume 49, Number 2, (Spring, 1995), p. 227.

[6] Richard H. Matzke, "Chevron's Caspian Commitment" *Fifth Kazakstan International Oil and Gas Exposition* (Almaty, 2 October 1997) at www.chevron.com/chevron_root/newvs/speeches/1997/97-10-02.html [01/02/2000].

Oman to form the CPC and this agreement was expanded to include Russia[7]. However Chevron was not offered an equity stake, and for four long years the CPC and Chevron, who is the pipelines primary customer were in disagreement. Undaunted Chevron used a variety of methods to export Tengiz oil to market. In a speech in 1997 Matzke recounts the following:

> Recently we completed a shipment from Tengiz to the Black Sea. First we filled rail cars with oil in Tengiz and moved them to Aqtaū on the Caspian. From there, the oil moved by barge across the Caspian to Baku, where a pipeline moved the oil for reloading to Ali Bayramli in Azerbaijan for reloading into railcars, and then on to the port of Batumi. From there it travels by tanker out to the Mediterranean[8].

This is a clear example of the problems of shipping product out of the region when access to pipelines is restricted. The mercaptan content of Tengiz crude was another hurdle placed in the path of Chevron. Mercaptans are corrosive compounds, that require a specialised extraction process in order to improve the marketability. Where mercaptans are present the blending of different graded crude, which is Russian policy when using Transneft is not possible. As a reuslt Russia repeatedly restricted the flow of Kazak oil through its pipeline system on these grounds. In order to overcome this impasse Chevron put in place a de-mercaptanisation facilities at cost of up to $100 million[9]. Dissatisfied with the stalled CPC negotiations Chevron realised that the only way to overcome the hurdle of pipelines was either to build their own, or to sweeten the deal for the Russians. Chevron proposed that Russia would receive a larger share of CPC, and that the tax exempt status of the CPC be revoked[10]. As a result of the insistence of Chevron, a new arrangement was agreed to. It is now a consortium of countries and various oil companies with shares ranging in size from 24

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[7] Roberts, op. cit., p. 24.

[8] Richard H. Matzke, "Pipelines to Progress: FSU Oil exports Past, Present, Future", *National Association of Petroleum Investment Analysts* (21 May 1997) at www.chevron.com/chevron_root/newsvs/speeches/1997/97-5-21-matzke.html [26/12/1998].

[9] Roberts, op. cit., p. 30.

[10] ibid. p. 31.

percent to 1.75 percent. The major shareholders of CPC are the Russian Federation (24 percent), Kazakstan (19 percent), Oman (7 percent), Chevron (15) percent and LUKarco with (12.5) percent. The primary customer will continue to be TCO which is now made up of Chevron (45 percent), Mobil (25 percent), Kazakstan, (25 percent) and LUKarco, (5 percent).

In order to accommodate the increased volume at Novorossiysk, which is the deepest port in the Black Sea, significant improvements need to be made. The Sheskharis oil terminal is divided into 5 sections: three dry cargo, one passenger terminal and Sheskharis, with a total of thirty quays that have an annual capacity of 40,000,000 tonnes of cargo. Weather, as in the neighbouring Caspian Sea, is inclement in winter months which sees the port closed for about 60-70 days every year, a significant downtime period. A total of $63 million dollars is being spent to double the handling capacity at Sheskharis to 30 million tonnes a year, or nearly 220 million barrel per year[11]. The repercussions of this increase will adversely affect the relationship between Russia and Turkey, the two countries that stand to make the most from transit fees from Caspian oil.

The enhancements to the port of Novorossiysk clearly indicate that Russia is keen to increase the amount of product that can be transferred into tankers for the journey south. In addition to this it has been revealed that Novorossiysk Steamship (Novoship) ordered in 1996 twelve double-hulled 40,000dwt tankers from Croatia, (valued at $225 million dollars), and in 1997 ordered from Japan six double-hulled 106,000dwt tankers[12]. Novoship already has 90 tankers in use, making it the seventh largest oil shipping company in the world. Regardless of what Turkey says about the dangers posed by increased tanker traffic to the Bosphorus it is obvious that Russia is going to amplify the number of south-bound passages through the Bosphorus.

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[11] "Can Novorossiysk Handle the Caspian Oil Boom ?" *Central Asia Caucasus Analyst* (14 February 1999) at www.cacianalyst.org/archives/issue%203%,%20Feb%2099/Oil%20Boom.htm [15/08/2000].

[12] ibid.

## Baku-Supsa/Novorossiysk

Transportation of oil from Baku presents perhaps the most salient example of geopolitical pressure in regards to pipeline direction. It also has provided several stark reminders that Azerbaijan, as well as neighbouring Armenia, Georgia and the Northern Caucasus, is viewed by the Russian Federation as an area being well within its orbit of interest, and will act accordingly. Whereas Kazakstan certainly has a significant foreign investment, notably from Chevron, Azerbaijan has seen much wider involvement and a change of government that can be directly attributed, in part, to the coercion related to energy reserve exploitation.

Baku has a number of early oil and late oil options at its disposal. The Baku-Grozny-Novorossiysk line, the Baku-T'bilisi-Supsa line and the Baku-Batumi railroad, as well as the proposed Baku-T'bilisi-Ceyhan MEP. All, except the last, have been characterised as 'early' oil options. There are three important reasons why the Baku-T'bilisi-Ceyhan route as the MEP has been proposed. The first reason is that the US government does not want the exportation of Caspian crude to be held accountable to the unilateral actions of Russia. Secondly, the US favours any route not through Iran. Thirdly, pressure from Turkey over the overused Turkish Straits (Bosphorus/Istanbul and Çanakkale Straits), and its desire to gain a financial windfall from transit fees played a major factor as well.

## Black Sea Options

One option that actually can benefit the Kazak and Azeri governments, as well as restricting Russian influence, is to ship oil to Odessa in the Ukraine and then further north via the 670 kilometre Odessa-Brody pipeline, which has been under sporadic construction for a number of years. There is already a precedent for this as the first shipment of oil through the Baku-Supsa pipeline, in April 1999, did in fact go to Odessa, via Constanta in Romania[13]. However regular shipments have not occurred. Ukraine, 'a big country using energy in inefficient ways'[14] needs

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[13] Steve Remp, "Dancing with Elephants Pioneering Oil and Gas in the Caspian, Central and Eastern Europe", *Central Asian Caucasus Analyst Forum Summary* (19 May 1999) at www.cacianalyst.org/forumsummaries/may%20Elephants.htm [16/06/2000].

[14] Ottar Skagen, *Caspian Gas* (London: Royal Institute of International Affairs, 1997). p.55.

to import large amounts of both oil and gas if its economy is to function. Domestic production of gas is only 10 percent and 20 percent for oil, forcing it to import 35 million tons of oil and 40-55 billion cubic metres of gas each year[15]. The oil is almost exclusively imported from Russia and over half the gas from Turkmenistan. Kiev has defaulted on payment to both Moscow and Ashgabad (Ashgabat) several times, and even has resorted to payments in kind, to Moscow, in the form of strategic bombers[16]. Russia has also sought to swap Ukrainian debt for direct shares in Ukrainian companies[17]. The accumulated debt to Turkmenistan, in the beginning of 1997, was $1,083 billion dollars, which has periodically resulted in either a decrease in supply, or a temporary suspension of shipment of the product[18]. In 1999, Turkmenistan suspended supplies until October later that year, and under a new arrangement to ensure uninterrupted supplies, Ukraine is to make weekly payments of $7 million in cash and $9 million in goods[19].

Debt, specifically ongoing debt, is commonplace in the FSU. Russia, in 1995, owed Gazprom an estimated 16 trillion roubles ($4.7 billion dollars) for product delivered in 1994. In 1996 debt to Gazprom from domestic Russian customers reached $7.5 billion dollars, and $3.3 billion from other customers in the FSU[20]. Ukraine is heavily dependent upon natural gas shipments from both Turkmenistan and Russia, but has some flexibility in seeking new trading partners for its oil needs with the advent of Caspian oil. President Kuchma of Ukraine has openly stated that as long as 'Ukraine's Achilles heel is its total

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[15] Bohdan Klid, "Ukraine as a Transportation Corridor for Caspian Oil to Europe" *Caspian Crossroads Magazine*, Volume 3, Number 1 (summer 1997) at www.ourworld.compuserve.com/homepages/usazerb/313htm. [28/12/1998].

[16] "Russia seeks to Expand Control of Ukraine" at www.stratfor.com/CIS/commentary/0002250112.htm [23/06/2000].

[17] ibid.

[18] Akira Miyamoto, *Natural Gas in Central Asia: Industries, Markets and Export Options of Kazakstan, Turkmenistan and Uzbekistan* (London: Royal Institute of International Affairs, 1997). p. 45.

[19] *Dow Jones International News* (11/01/2000) via Caspian Clips (International Institute for Caspian Studies; Tehran) E-Mail list [11/01/2000].

[20] Valery Kryukov and Arlid Moe, *The New Russian Corporatism ? A Case Study of Gazprom* (London: Royal Institute of International Affairs, 1996). p.25.

dependence on Russia for its supplies of oil, natural gas and nuclear energy, it cannot but be deeply interested in Kazakstan's oil and gas exports'[21].

To loosen the noose that Russia has around Ukraine, Caspian oil could flow through the, (as-yet incomplete), pipeline from Odessa which would eventually link up to the southern arm of the 1.25 million bpd *Druzhba* pipeline, which services the likes of Poland and Slovakia. The *Druzhba* pipeline, ironically, provides Ukraine with the opportunity to charge a tariff on Russia for exporting its own hydrocarbon reserves through Ukrainian territory. However, Gazprom, operator of the pipeline, recently announced that it would no longer argue with Ukraine over an outstanding gas debt of $1.9 billion dollars. Instead, Gazprom has decided to build pipelines bypassing Ukraine, bad debts and tariffs included, and the issue of 90 percent of its exports moving through Ukraine[22]. This last factor explains why both the Russian government and Gazprom have sought to acquire hard assets in Ukraine in order to use these as a buffer to Ukrainian attempts of constricting flow of natural gas to central Europe. LUKoil has also been actively seeking to appropriate assets in the Ukraine. In April 1999, a subsidiary of LUKoil acquired a 51.9 precent controlling stake in the Odessa refinery, which porcessed two million tons of oil in 1998[23].

This approach of acquiring strategic assets is part of Russian endeavours to increase both political and economic influence and control over the FSU where direct military coercion is not feasible. Even if Ukraine was successful in convincing the likes of Azerbaijan and Kazakstan to send oil via Odessa there are a number of very important constraints upon the long term viability of this option. These include the export capacity of pipelines from both Supsa, 100,000 bpd, and Novorossiysk 1,340,000 bpd, and the limited capacity of the 800,000 bpd Odessa-Brody pipeline. Whilst the Ukrainian refineries are operating at

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[21] Cited in Manabu Shimizu, (ed.), "The Caspian Power Basin and Its Impact on Eurasian Power Games" *IDE Spot Survey* (Tokyo: Institute of Developing Economies, 1998). p. 45.

[22] "Russian Pipeline Plans Prevent Pilfering" at www.stratfor.com/CIS/commentary/0003172341.htm [23/06/2000].

[23] "LUKoil expands Cooperation with the Ukraine" *Press Release* (14 October 1999) via LUKoil E-mail list.

under 40 percent of capacity[24], there is no under-utilisation in Central Europe where refinery capacity is less than one million bpd[25]. There is another important factor, how will Ukraine pay for the product if it is to be used to fuel its economy ? A further proposal to build another pipeline from Brody to Adamowa Zastawa in Poland, a distance of some 300 kilometres, could result in Caspian oil reaching Poland and Germany[26]. The supply of Caspian oil to these markets depends upon a decrease in supply from Russia, which in the current geopolitical context is highly unlikely.

Discussion of these transit corridors is incomplete without reference to the Turkish Straits. These narrow passages, in particular the Bosphorus, are geostrategic lynch-pins to the successful exploitation of Caspian energy reserves.

## The Bosphorus

The Bosphorus choke-point is a significant geographical hurdle to the exploitation of Caspian reserves regardless of whether or not the Baku-Ceyhan route fails to come on-line. It is currently the only exit point for product from Novorossiysk and Supsa, unless the Burgas-Alexandropolis pipeline, or the Burgas-Vlore (Albania) pipeline moves from being mere discussion to actual creation. The Burgas-Alexandropolis option is unlikely to eventuate, given the environmental danger that a pipeline, along with heavy tanker traffic, would pose to the Alexandropolis delta[27]. Currently an estimated 1.7 million barrels per day travel the 31 kilometre long passage that separates continental Europe and Asia, with only 0.2 million heading east (north) to markets in the Black Sea such as Romania and Bulgaria[28]. The Bosphorus is over-crowded, dangerous and clearly not suitable as a long-term exit for Caspian crude either from Supsa or Novorossiysk. It has become a 'traffic jammed obstacle course' according to one

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[24] Klid., loc. cit.

[25] "Central Europe's Needs and New Caspian Suppliers", *CIS Special Reports* at www.stratfor.com/CIS/specialreports/special23.htm [23/06/2000].

[26] Klid., loc. cit.

[27] Rosemarie Forsythe,. *The Politics of Oil in the Caucasus and Central Asia* (London: Oxford University Press, 1996). pp.48-49.

[28] ibid.

writer[29]. The Bosphorus handles three times as many ships as the Suez canal. Statistics available from the Turkish Maritime Pilots Association reveal that, in 1999, 5,540 oil tankers passed through the Bosphorus out of a total 47,906 vessels. Over 2,168 vessels that traversed the straits were in excess of 200 metres in length, an average of six passages a day[30]. To place this into perspective compare the relative sizes of tankers in the following chart. A medium sized tanker is about 20,000 dwt (deadweight tonnes) and 200 metres in length, however vessels in excess of 300 metres regularly make this short but extremely hazardous journey.

**Table 4.1 Approximate Dimensions of Tankers**[31]

| Dwt | Breadth (m) | Draught (m) | Length (m) |
|---|---|---|---|
| 20,000 | 22 | 9 | 180 |
| 100,000 | 41 | 15 | 270 |
| 200,000 | 50 | 18 | 330 |
| 400,000 | 60 | 25 | 370 |
| 550,000 | 63 | 29 | 410 |

In recent years there have been a number of tragic shipping accidents, and not a few near-misses, that highlight safety concerns. In 1979, the collision at the southern entrance to the Bosphorus, between the Greek tanker *Evriyali* and the

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[29] Molly Moore, "The Bosphorus: A Clogged Artery" *Washington Post* (16 November 2000) at www.washingtonpost.com/wp-dyn/articles/A28625-2000Nov15.html [10/12/2000].

[30] *Statistics of Passages Through Istanbul Straits Within 1999* at www.turkishpilots.org/DOCUMENTS/statistics/bosporusstat99.html [10/12/2000].

[31] Alistair Cooper (ed.). *The TIMES Atlas of the Oceans* (Sydney: Angus and Robertson, 1983). p. 138.

Romanian owned *Independenta* resulted in the loss of 43 lives (mainly from the *Independenta*) and the release of 95,000 tons of oil which burned for weeks[32]. On 14 March 1994 another tragic accident occurred when the 66,000 ton Greek Cypriot registered *Nassia* collided at the northern entrance to the Bosphorus with the Cypriot registered *Shipbroker*, killing 29 seamen from the *Nassia*[33]. This fatal accident released 20,000 burning tons of oil in to the Bosphorus that raged for five days. More recently on 29 December 1999, the Russian tanker *Volganeft 248,* en-route from Novorossiysk, ran around south of Istanbul, spilling 800 tons of a 4,300 ton cargo of fuel oil into the Marmara Sea[34]. On 27 July 2000 the sister ship to the ill-fated *Independenta*, *Iris Star*, formerly the *Biruinta*, almost came to grief in the Bosphorus Straits as well, when its engines cut-out. The fully laden tanker with 135,000 tons of crude oil drifted without power for several minutes, underneath the Fatih Sultan Mehmet Bridge, and was only aided by tug boats as it approached the turn at Kandilli[35].

Navigation of the Bosphorus is problematical for a number of reasons which is, exacerbated the larger a vessel is. At 31 kilometres in length it has an average width of just 1.5 kilometres, with the narrowest only being 700 metres at Kandilli. The passage has a total of 12 abrupt angular turns, including several blind corners, including Kandilli (mid-way), that has a blind 45 degree bend. At Yeniköy, north of Kandilli, the necessary course alteration is 80 degrees[36]. To compound this, there are strong currents and counter-currents of 5-8 knots that frequently change, with added seasonable obstacles such as thick fog and snow. Upon navigation of the Bosphorus a vessel must also pass through the 70 kilometre long Straits of Çanakkale (Dardanelles) that has a general width of 1.3

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[32] This accident although largely unknown was the world's tenth worst tanker accident so far. The worst occurred the same year in the West Indies when 287,000 tonnes was lost as the *Atlantic Empress* broke up. The *Exxon Valdez* by comparison is ranked 34th, with 37,000 tonnes of crude lost. *Statistics* at www.itopf.com/stats.html [12/12/2000].

[33] "Can Novorossiysk Handle the Caspian Oil Boom ?" ibid.

[34] Bülent Aliriza, "The Clear and Present Danger in the Turkish Straits", *CSIS Energy Update* at www.csis.org/turkey/CEU000115.html [18/08/2000].

[35] "Disaster "near-missed" in the Strait of Istanbul" at www.turkishpilots.org/NEWS/20000727_Iris_Star_Near_Miss.htm [10/12/2000].

[36] "Navigational and Environmental Safety in the Turkish Straits" *Republic of Turkey Embassy Website* at www.ozemail.com.au/~tuksembs/strait1.htm [18/08/2000].

- 2 kilometres[37]. With constraints such as this it is no wonder that accidents occur.

The passage of oil from Novorossiysk through the Bosphorus is unequivocally a cause of anxiety for the Turkish Government as well as others involved in seeking to export Caspian oil. Norwegian Oil and Energy Minister, Olav Akselsen, whose state owned oil company, Statoil, is part of the AIOC and who would benefit from the Ceyhan option, has said that he understands the 'concerns of the Turkish government over the number of vessels using the strait' and that the 'Bosphorus is not a suitable for transportation of the mail flow of Caspian Basin oil'[38]. Given that Istanbul is home to in-excess of 10 million people, it is evident why Turkey has been a strong supporter of the Baku-Ceyhan pipeline, although there are other reasons, both financial and geostrategic, to consider as well.

The Gulf conflict between Iraq and the Western backed coalition in support of Kuwait resulted in sanctions being placed upon Iraq. One of the results of this was the ban on Iraq exporting oil. This had an immediate impact on Turkey, as a considerable amount of money was lost from transit fees gained from Iraqi oil that flowed to the Ceyhan terminal. Since 1990, Turkey has lost billions in hard currency in transit fee revenue. A new pipeline, from a new market, would provide in the long term a significant boost to the Turkish treasury, even more when sanctions are lifted against Iraq.

The main geopolitical concern for Turkey, is that the Bosphorus is deemed to be 'international waters' because of the 1936 Montreaux Convention, and therefore technically outside its control regarding the number, size and cargo of ships that transit the straits. The Montreaux Convention was originally a product of the defunct League of Nations, through the 1923 treaty of Lausanne, which demilitarised the straits leaving Turkey, and Russia, vulnerable to stronger naval

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[37] ibid.

[38] "Norway: Bosphorus not suitable as oil route" *Lloyd's List Newspaper*, cited at www.turkishpilots.org/NEWS/2000_11_09_Lloyds_List_Bosphorus_Not_Suitable_as_oil_Route.htm [11/12/2000].

powers. According to Daly, the Montreaux Convention was 'to replace this [demilitarised] ad hoc arrangement with something more permanent'[39]. The Montreaux convention is now viewed as customary international law, even if its principles are in conflict with the spirit of the Law of the Sea Convention 1982. In particular, Article 2 of the Montreux Convention states that 'in times of peace vessels shall enjoy complete freedom of transit and navigation by day and night under any flag and with any cargo'[40]. In theory, this means that the *Jahre Viking*, formerly the *Seawise Giant*, the world's largest oil tanker, could attempt to traverse the Bosphorus, however given that it is 458 metres in length this is unlikely.

In order to create some kind of management regime over the free use of the Bosphorus, Turkey established, unilaterally, on 1 July 1994, shortly after the *Nassia* accident, a number of procedures that have been accepted, albeit grudgingly, by those nations that use this transit corridor. These regulations were discussed by the International Maritime Organisation (IMO), naturally meeting with strenuous objections from Black Sea littoral member-states and countries favoured for tanker registration, such as Cyprus, but Turkey was unmoved in its resolve to implement this new regime[41]. The principle regulations of the Traffic Separation Scheme (TSS), include the division of the Istanbul Straits, Marmara Sea and the Çanakkale Straits into five separate traffic lanes. Vessels over 200 metres can only navigate in daylight hours, vessels over 150 metres need to give advance notice, and the straits will be closed until vessels carrying dangerous cargo (including oil) have passed the Istanbul Straits[42].

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[39] John Daly, "Oil, Guns and Empire: Russia, Turkey, Caspian "New Oil" and the Montreaux Convention" *Caspian Crossroads Magazine* Volume 3, Number 2 (Fall, 1997) at www.ourworld.compuserve.com/homepages/usazerb/325.htm [28/12/98].

[40] Captain Mark Rosen, "The Black Sea and her approaches: Will there be fair winds and following seas ?" *Caspian Infrastructure: Roads Rails and Pipelines Conference* (11-12 December 1997) at www.sipa.columbia.edu/RESOURCES/CASPAIN/inf_p15.html. [02/02/2000].

[41] Aliriza, op. cit.

[42] "Safety of Navigation" *Republic of Turkey Embassy Website* at www.ozemail.com.au/~turkembs/navigate.htm [31/12/1998].

It remains to be seen what real effect these regulations will have on the capacity to export Caspian crude through the Bosphorus. The Turkish Government has forecast a significant increase in tanker traffic if the Northern and Central routes depend on the Bosphorus as the main exit from the Black Sea, and has referred to the Bosphorus as the 'Achilles heel' of the Northern route. There is some validity in this statement with half of Russia's current oil exports leaving via the Bosphorus. The anticipated increase in oil production from Azerbaijan alone will result in a 100 percent increase in tanker traffic, depending upon the size of the tankers used. If medium-sized tankers were used - 25,000 ton - the total number of passages would rise by almost 3,000 – greatly increasing the risk of accidents. However the risk, and the impact is multiplied significantly, if tankers of 100,000 dwt are used. This would average an additional two tankers per day – and lead to closure of the Bosphorus for approximately 6-8 hours per passage, if Turkish protocols are followed.

Conversely to this negative view, partly based on reality, partly based on promotion of the Ceyhan option, is the fact that Turkey would be able to use the Bosphorus for what it is – a geostrategic noose, capable of effectively stopping the transportation of oil from the Caspian basin. Ismail Cem, the Turkish Foreign Minister alluded to this in 1998:

> We warn those who are contemplating such a calculation that they will face serious difficulties in transporting not only existing oil shipments but also future ones through the Turkish Straits starting in the year 1999. To this end Turkey will start implementing all possible means afforded by international legislation as well as its own legislation. Turkey has both a right and the determination to take all necessary measures to protect the ecological system as well as the historic and cultural environment of the Turkish Straits[43].

Turkey, favoured ally of the US, associate member of the European Union, full member of NATO, is in the position to strongly encourage use of the Baku-

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[43] *Press Release* Turkish Embassy (Washington) at www.turkey.org/releases/102498.htm [31/12/1998].

Ceyhan option as the limitations placed upon the Turkish Straits, in particular the Bosphorus, do not exist with the Ceyhan option.

### Baku-T'bilisi-Ceyhan

There are two camps with opposing views when it comes to discussing the Baku-Ceyhan option as the MEP for Caspian, mainly Baku-produced, oil. On the one hand are politicians (primarily Turkish and American), and on the other, hard-nosed and very experienced MOCs. One seeks a political outcome, the other wants to make money. Robert Ebel from the Centre for Strategic and International Studies (CSIS) makes the very salient point that "Pipelines are supposed to be built for commercial reasons, not political reasons"[44]. Richard Matzke from Chevron has been more direct in saying that the Baku-Ceyhan option "probably isn't the most rational solution at the moment"[45]. The MEP is actually a decision for the AIOC consortium to make, since in all likelihood it is they who will be paying for its construction, regardless of the eventual route. The preferred route for the US Government is from Baku to T'bilisi and then down into Turkey, possibly skirting the edge of the Kurdish populated South-East, eventually reaching the Ceyhan Marine Terminal, at Yumurtalik on the Mediterranean Sea, which can easily accommodate 300,000dwt tankers 365 days a year.

A question on everyone's minds is whether or not the production from AIOC will be enough to justify the estimated $2.3 to 2.8 billion dollars, according to American and Turkish interests, needed to construct the 1,300 kilometre pipeline. The economic viability is obviously a concern, and "the AIOC has been warning with growing frankness, that the commercial case for Baku-Ceyhan does not add up"[46]. The MEP needs to be carrying 1,000,000bpd to be feasible, and according

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[44] Stephen Kinzer, "On Piping Caspian Oil, US insists the Cheaper, Shorter way isn't better" *New York Times on the Web* (8 November 1998) at www.nytimes.com [17/02/1999].

[45] ibid.

[46] "Oil out of troubled waters", *The Economist* (28 November 1998), p. 58.

to the AIOC, its production will peak at 800,000bpd[47]. The possibility of using oil from Tengiz is not feasible as too much has been outlaid on new pipelines and facilities at Novorossiysk. Another question is where will the product eventually be delivered to. If Caspian oil ends up in the Mediterranean, rather than going to East Asia, where the strongest demand is, "this is going to be an extremely inefficient way of meeting demand", according to Mehdi Varzi, an oil analyst at Kleinwort Benson[48]. In addition to these significant questions, the recent merger (take-over) between BP and Amoco has shifted the balance in favour of an eastern route for AIOC oil. It has been reported that some oil industry analysts believe that BP is very keen to get back into Iran, where years ago the 'other' AIOC (Anglo-Iranian Oil Company) originated[49]. BP owned the old AIOC and lost it when it was nationalised by Mossadeq in 1951[50]. Since the combined BP-Amoco share in the AIOC is over 34 percent, which is by far the single largest block, they have a considerable amount of sway. Given that, according to Apostolou, Exxon Mobil, LUKoil and Pennzoil are not in favour of the MEP at all, it would appear that other long term options need to be considered – including an Iranian option, and with another oilman in the US Whitehouse only time will tell[51].

### *The Implications*

This thesis argues that the identifiable geopolitical and geostrategic implications are a direct consequence of attempts to exploit and extract energy reserves from the Caspian sea basin. Some have already been manifested and are currently affecting littoral states of the Caspian Sea, other ramifications are yet to

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[47] Andrew Apostolou, "Changing US Administration Provides Opportunity for review of Caspian Policy" *Eurasianet Business and Economics* at www.eurasianet.org/departments/business/articles/eav010401.shtml [09/01/2001].

[48] Mehdi Varzi cited in Diarmid O'Sullivan, "Pipe dreams come closer to reality" *MEED* (28 March 1997). p. 3.

[49] Tom Hundley, "Caspian Sea Oil: A prize the US wants to control" *Chicago Tribune* (25 November 1999) via Eurasia Geopolitics email list [01/12/1999].

[50] Amin Saikal, *The Rise and Fall of the Shah* (Princeton: Princeton University Press, 1980). p. 39.

[51] Even if Al Gore was elected there would still be an oilman in the Whitehouse as Gore has significant relations with Occidental Petroleum.

materialise, being dependent upon the eventual outcome of pipeline direction and the long-term entanglement of actions that have occurred thus far. The implications are;

- Being susceptible to external actors influence over pipeline direction and access through political/economic or military intimidation. Examples of which include Russian economic intimidation of Kazakstan, America's prohibition of investment in Iran inexcess of $20 million dollars, implicit threats from Turkey over continued use of the Turkish straits as a conduit for transportation of Caspian oil. Kazakstan decision to cede disputed territory to the PRC with the view to exporting reserves to PRC.

- Being exposed to latent and manifest insurgency in countries, particularly non-contiguous, where pipelines traverse, which may or may not be instigated by external actors. Examples of which include Chechnya, Georgia, Afghanistan, and separatists such as the PKK

- impediment to institutional development, in particular democratic processes, as autocrats personally involved in energy exploration are unwilling to allow 'fair and free' elections as this may affect their own standing. Examples include the processes that both Aliyev and Nazarbayev have used to guarantee their continued control of their respective countries.

- Economic mismanagement leading to 'Dutch Disease' and instability in the region. The primary example being Kazakstan.

### Being susceptible to external actors influence over pipeline direction and access through political/economic or military intimidation

The most consequential implication has been the fact that actors have sought to influence or dictate where pipelines will go, either through economic, political or military force and intimidation. This was of course going to happen because the NIS of the Caspian could only export through the territory of other actors and therefore were dependent upon the political good will of these actors. It is

obvious that actors, in particular Russia, have exercised an undue amount of influence upon the CAR and the Caucasus over the last ten years since the fragmentation of the USSR. Russian influence over its *blizhnee zarubezhie* (near abroad) was of course, in hindsight, to be expected, but the pervasiveness and tenacity of the Russian Federation is quite astounding.

Russia, to enhance its role in the Caucasus used the Russian military to obtain concessions from Georgia and Azerbaijan. Originally both had resisted joining the CIS, but 'political causes, played a role in driving both into the Commonwealth'[52]. Russia used Georgia's irredentist Abkhazian minority and Georgia's own internal weakness to obtain basing rights for its military[53]. The Russian parliament was a strong supporter of the Abkhazians and at the time there was speculation as to what forces in Russia were interested in such a turn of events[54]. In neighbouring Armenia the military obtained concessions in Armenia's conflict with Azerbaijan over Nagorno-Karabakh. In the Caucasus, only Azerbaijan continues to be free from Russian military bases that could be used to apply military pressure for the possible benefits of obtaining a further slice of the oil reserves of the Caspian Sea basin[55]. This did not stop Russia using 'gunboat diplomacy' on the recalcitrant, and anti-Russian, Azeri government of Abulfaz Elchibey.

In June 1993, the 104th and 107th Russian infantry divisions rolled toward Baku, when Azerbaijan was about to sign a 30 year contract with a US based consortium, even though at this stage Azerbaijan was not a member of the CIS [56]. Several days later the Elchibey government fell and the contract naturally was

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[52] Irina D. Zviagelskaya, "Central Asia and Transcaucasia: New Geopolitics" in Vitaly V. Naumkin (ed.). *Central Asia and Transcaucasia: Ethnicity and Conflict.* (Westport: Greenwood Press, 1994). p. 129.

[53] Zbigniew Brzezinski, *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997). p. 142.

[54] Zviagelskaya, loc. cit.

[55] Mike Edwards. "The Fractured Caucasus", *National Geographic.* Volume 189, Number 2. (February 1996). pp. 128-130.

[56] Mehdi Mozaffari, "The Oil and Gas of the Caspian Sea: Regional Cooperation and Competition", in Mehdi Mozaffari (ed.). *Security Politics in the Commonwealth of Independent States* (New York: St. Martin's Press, 1997). p. 199.

cancelled. Aliyev, then prime minister, assumed control and quickly consolidated his position, reintegrating Azerbaijan into the CIS on 24 September. Just days before this announcement, on 17 September, he had meet with Vagit Alekperov (an Azeri), President of LUKoil and signed an agreement on the principles of cooperation with SOCAR[57]. On 26 November the new government of Aliyev signed an agreement that gave the Russian state oil company [LUKoil] a minimum ten percent share in its impending 'deal of the century'[58].

Influence can also be manifested in the amount of power that MOCs have in their relationships with Governments. The new oil and gas adviser to Eduard Shevardnadze, was a former Vice-President of Chevron. Similar relationships exist in Azerbaijan where Aliyev's son is Vice-President of SOCAR, and in Kazakstan where Nazarbayev's son-in-law is Chief Executive Offcier (CEO) of Kazakoil.

The attempts from the US have been less spectacular, primarily because the region was for a number years not on its agenda, and when the Clinton Administration finally realised the geopolitical significance, in 1997, it was almost too late to influence the direction of the MEP. America's influence has been limited to this, and its continuing sanctions against Iraq and Iran, which have benefited the proposed route of the MEP through America's ally Turkey.

### Being exposed to latent and manifest insurgency in countries

In addition to being susceptible to pressure from external actors, the examples of insurgency and irrendentist movements within these states clearly shows that conflict in one state, even if non-contiguous, will have a detrimental effect on the viability of that region being a safe conduit for Caspian energy reserves. The two wars in Chechnya have provided a unmistakable example of how vulnerable an exporting state is to non-contiguous conflict. According to Andrei Shoumikhin:

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[57] Pavel Baev, *Russia's Policies in the Caucasus* (London: Royal Institute of International Affairs, 1997). p.32.

[58] ibid.

> The war in Chechnya had seriously compromised the very idea of exclusive reliance of littoral oil producing states on Russian processing and transportation capabilities and has precipitated the search for alternatives[59].

This kind of conflict has affected both Azerbaijan and Kazakstan. Until the Baku-Supsa pipeline was completed Azerbaijan was severely limited in export options. Shipments north through Grozny were unreliable as was the Batumi railroad. In April 1999 the Chechens shut down the Baku-Novorossiysk pipeline claiming that $4 million in security fees from Moscow were unpaid[60]. The Baku-Batumi railroad terminates at the principal city of Ajaria, a region effective outside the control of the Georgian central government 'run as a personal fiefdom by Aslan Abashidze'[61]. Ajaria was the only autonomous territory in the FSU awarded on the basis of religion, not ethnicity, with 90 percent being Georgian Muslim[62]. However even the Baku-Supsa option is exposed to the possibility of latent conflict. Instability in Georgia, directly attributed to Russian influence, and its open support for both the Abkhazian and Ajaria irredentist forces, could erupt again. This time will antagonists seek to capture or disable strategic assets, such as a pipeline ? If this were to happen, who could Azerbaijan, and Georgia turn to if they were unable to control the situation ? Clearly not Russia.

A scenario like this is bleak, but not confined to the realm of make-believe. Although rejected as a possibility by Ilham Aliev, President Heidars's son and Vice-President of SOCAR and now Speaker of the Parliament, the notion that NATO would be involved in protecting pipeline routes cannot be totally cast

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[59] Andrei Shoumikhin, "New Developments Related to Caspian Oil" *Perspectives on Central Asia* Volume 1, Number 9 (December 1996) at www.cpss.org/casianw/decpers.html [31/08/1998].

[60] Richard R. Dion, "Long view of Caspian oil export options tilts to Kazakstan-China" *Oil and Gas Journal* (7 June 1999) at www.findarticles.com/cf_0/m3112/23_97/54906401/print.jhtml [18/09/2000].

[61] Roberts, op. cit., p. 19.

[62] Suzanne Goldenberg, *Pride of Small Nations: The Caucasus and Post-Soviet Disorder* (London: Zed Books, 1994). p. 38.

out[63]. Were NATO to become involved in a possible conflict, if it was providing a military force to safeguard the pipeline, then it is highly probable that the conflict would quickly escalate into a far more serious battle with global ramifications. After, all as Baev suggests, 'Russia has relied strongly – as it has always done- on military instruments in pursuing its political goals in the Caucasus'[64].

In a similar vein, should the MEP actually proceed, what assurances will Turkey provide against attack from the *Pârtiya Kârkerâna Kurdistân* (Kurdish Worker's Party – PKK), given that in 1997 they attacked the Iraqi pipeline to Ceyhan ?[65] Instability is not limited to the Caucasus. The conflict in Afghanistan, as well as the policies of the ruling Taliban have all but killed off any notion of a pipeline from Turkmenistan to Pakistan and onward to energy-starved India. Pipeline history in the Middle East suggests that;

> Few pipelines have survived and prospered in politically volatile areas. Successful pipelines – Trans-Mediterranean (Algeria-Tunis-Italy) and Maghreb-Europe (Algeria-Morocco-Spain) seem to be based on a depoliticised environment, private law models and limited state involvement[66].

The environment of constructing pipelines is highly politicised in the Caspian, with significant state involvement. A positive feature of state involvement is that the AIOC process is part of the Azeri legal code. Whether this would prove beneficial remains to be seen.

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[63] "Azerbaijan Oil Official Rules Out NATO Guard for Pipeline" Transcaucasia and Central Asia *RFE/RL Newsline* at www.rferl.org/newsline/22-tca.html [02/12/1999]. See also Richard Sokolsky and Tanya Charlick-Paley, *NATO and Caspian Security A Mission Too Far ?* (Washington: RAND, 1999).

[64] Baev, op. cit., p. 57.

[65] Olivier Roy, "Crude Manoeuvres" *Index OnLine* (Issue 4/97) at www.oneworld.org/index_oc/issue497/roy.html [11/08/2000].

[66] Thomas Waelde, Sergei Vinogradov and Armando Zamora, "The Caspian Dilemma: Prosperity or Conflict?" *Caspian Oil and Gas* at www.poli.vub.ac.be/publi/crs/eng/Vol5/waelde.htm [01/08/2000].

## Impediment to institutional development, in particular democratic processes

The CAR and the Caucasus emerged from the Soviet political system so it should have been expected that civil society institutional frameworks would take a period of time to gain acceptance, if at all. Liberal Democratic ideals, and the electoral governance processes intrinsic to being able to conduct free and fair elections appeared to gain a strong foothold in a number of republics such as Kazakstan, the Kyrgyz Republic, Armenia and Georgia. Georgia, a complex federation along ethnic lines began to implode, with the help of Russia, and along with Azerbaijan went down the path of other nations in seeing its democratically elected president ousted in a *coup d'état*, also helped along by Russian interference[67]. Authoritarianism continued in Uzbekistan, increased even more so in Turkmenistan to the point of totalitarianism, and the state essentially failed in Tajikistan[68]. The close, and seemingly successful, relationship that MOCs have with governments like these should not come as a surprise.

> Oil companies take a more relaxed attitude to political risk than many other firms. They are used to dealing with violent or unstable countries. Because oil is simply pumped out of the ground and can be speedily exported, they can tolerate economic mismanagement, civil disobedience and even isolated violence in the host country more easily than other industries[69].

The interference has been at the visceral level as a result of the importance of hydrocarbon development to these countries increases. Normal democratic development would see the creation of electoral bodies either non-partisan or multi-partisan in character, but independent from the governments agenda.

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[67] For a discussion on the conflicts within Georgia and Azerbaijan at this time see Suzanne Goldenberg, op. cit.

[68] For a discussion on the return to authoritarianism in the CAR see Bess A. Brown, "Authoritarianism in the New States of Central Asia: An Overview of Post-Independence Politics" *Bericht des BIOst*, (Nr 46/1996).

[69] "A Caspian Gamble A Survey of Central Asia" *The Economist* (7 February 1998). p. 6.

Ideally the Central Election Commission would have the backing of an independent legislature to oversee free and fair elections. This development has not been forthcoming. In 1999, Nazarbayev won another seven year term as President, which was not totally unexpected. However in order to ensure this, the Supreme Court of Kazakstan disqualified former prime minister Akezhan Kazhegeldin as a candidate[70]. As Fink attests "having a constitutional law that allows for presidential appointments guarantees a favourable administrative system"[71]. Voting irregularities, including the stuffing of ballot boxes, were reported at the Parliamentary Elections later that year as well, by various election observers, including the German Ambassador to Kazakstan, Dr. Michael Libel[72]. The US policy, as espoused by Strobe Talbott in 1997, toward Central Asia and the Caucasus noted America's support in the region in four distinct sphere's of influence, including the promotion of democracy[73]. However as Adam Smith Albion has correctly stated "the United States is happy to deal with plenty of autocratic led states that have hydrocarbons, and surely this has not gone unnoticed by the Central Asia leaders"[74].

It was recently revealed in July of 2000, that the US Justice department was investigating an adviser to Nazarbayev over laundering money. The Justice department said that $60 million, thought to be payments from western oil companies for Kazak oil, are in accounts, allegedly controlled by Nazarbayev, former Prime Minister Kazhegeldin, and Balgimbayev, another former Prime

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[70] Steve LeVine, "Caspian Logic: Democracy ? Sure, Sure. Now Buy our Oil." *New York Times on the Web* (3 January 1999) at www.nytimes.com [17/02/1999].

[71] Michael Fink, "Disempowerment Through Democratization: Recent Elections in Kazakhstan and Tajikistan" *Central Asia Caucasus Analyst* (November 24 1999) at www.cacianalyst.org/Nov%2024/Fink.htm [06/01/2000].

[72] "The 1999 Parliamentary Elections in Kazakstan – Towards Democracy ?" *Central Asia Caucasus Analyst* (3 November 1999) at www.cacianalyst.org/forum%20Summaries/Nov%203%20kazak%20elect.htm [06/01/2000].

[73] Strobe Talbott, "A Farewell to Flashman: American Policy in the Caucasus and Central Asia" *Central Asia Caucasus Analyst* at www.caicanalyst.org/forum%20Summaries/july%2021%20Talbott.htm [06/01/2000].

[74] LeVine, ibid.

Minister and now head of Kazakoil[75]. This matter is still unresolved, but presents a grime picture if the charges are proved.

## Economic mismanagement leading to 'Dutch Disease' and instability in the region

The social and economic problems facing the hydrocarbon exporting states of the Caspian Basin are not unique to these states, nor the (unrealised) hopes attached to the expected revenue windfall. Willy Olsen, a senior adviser to Statoil commenting on the role of the energy sector in the region said that "The euphoria of independence and the hopes of a free and prosperous future has to a large extent been replaced by disillusionment. The counties of Central Asia and the Caucasus have yet to return to 1989 GDP levels"[76]. Kazakstan is a state on the path to developing Dutch Disease and has already developed a 'rentier state' attitude to it energy reserves. The government of Kazakstan has encouraged popular expectation of;

> imminent wealth and has engaged in both overspending and excessive borrowing, whilst ignoring the plight of key economic sectors, such as manufacturing and agriculture, and failing to develop a reliable tax collection system[77].

Kazakstan is falling into the same trap that the USSR did when it came to developing the cotton monoculture, short-term gains without long term planning. Because there is an inadequate taxation system Kazakstan has been forced to sell half of its share in the Tengiz field in a private invitation based auction, due to a $560 million budget shortfall[78]. Kazakstan received an estimated $1.2 billion in

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[75] Louise Shelley, "Corrupt Oil Practices Implicate President Nazarbayev" *Central Asia Caucasus Analyst* (19 July 2000) at www.cacianalyst.org/Headline1.htm [26/07/2000].

[76] Ben Partridge, "Caspian Sea: Oil-Rich Caspian Nations Should Emulate Norway's Model" *Radio Free Europe/Radio Liberty* (9 July 1999) at www.rfefl.org/nca/features/1999/07/F.R.U.990709135224.html [23/07/1999].

[77] Pauline Jones Luong, "Kazakhstan: The Long Term Costs of Short-term Gains" in "Energy Wealth and Development in Central Asia and the Caucasus" *NBR Analysis*, Volume 10, Number 3, (August 1999). p. 30.

[78] Steve LeVine, "Short on Funds, Kazakhstan to Sell off the Vast Tengiz Oilfield" *New York Times on the Web* (19 August 1999), www.nytimes.com/99/08/19/financial [20/08/1999].

direct investment when then Prime Minister Kazhegeldin sold off the bulk of the governments shares in various hydrocarbon based enterprises, including its three oil refineries[79]. Eventually Kazakstan will have no hard assets left to sell, and then must either rely on the rents collected from the oil fields, and/or seek to reform the system – at greater pain to the populace. In addition to the privatisation approach that the government has followed, it has shifted the responsibility, and the blame, to the owners of ventures once controlled by the state. The effect on the populace will result in growing discontent with the 'market reforms' and will call for a return to the 'good old days' with a state-controlled economy. Thereby compounding the challenged democratic process even further.

### *Who then is the Winner ?*

If the prize is the transport corridors who then is the winner ? In chapter one it was stated that:

> The winners will be those actors who control access to the potential pipeline routes, those that are able to charge transit fees, and those actors whose product is ultimately exported.

In order to answer this perhaps it is easier identify who are not the winners. The FSU exporting littoral states of Azerbaijan and Kazakstan, or Turkmenistan, that has yet to really enter the race are not winners, due to two factors, firstly they have no real control over access and their countries are suffering from the negatives results of the geopolitical and geostrategic implications identified. Neither is Iran a winner, at this stage, as it is most likely that with the change in Administration in the US with George W. Bush as President, the Iran-Libya Sanction Act (ILSA) will remain a viable component of US Foreign policy in the region for the conceivable future. Although there have been a number of 'special

[79] Luong, op. cit., p. 43.

dispensations' granted in recent years, in particular the 1998 decision to allow French/Russian/Malaysian investment in the South Pars gas field[80].

Amongst the Caspian states, only the Russian Federation has achieved any short-term geopolitical or economic advantage from pipeline direction. However the *Transneft* system is, as Olivier Roy mentions, 'ramshackle[d] and unequal to the challenge of pumping the flood of energy expected to flow from Asia's hinterland in the first decade of the twenty-first century'[81]. So while it might be correct in the interim to say that Russia has won the initial prize, the reality is quite different. Unless Russia seeks to invest significant capital into refurbishment of the existing pipeline structure, the anticipated flow from regions such as Tengiz will be go to new pipelines, and most likely not through the Russian Federation. However, even with a significant increase in pipeline capacity, the continued use of the Bosphorus as an export route is as previously mentioned, open to possible unilateral actions from Turkey.

The purpose of this paper was not to focus on a winner, but rather to identify geopolitical and geostrategic implications. One of the outcomes from identifying such implications is of course that there are losers, and in this particular race, it has been the common people of those littoral FSU communities that have no way of changing the immediate future, because they have no effective voice in which to communicate their concerns, except through violence. The rise in suspicious electoral governance processes has seen any effective opposition effectively blocked from running for office. However even the leaders of these communities are not winners either. A failure to produce the results they often speak of can only lead to mounting dissent, this coupled with the increase in social and economic maladies is fuel for either radical political reform, or a continued regression into authoritarianism. One only has to look at the fall of the Shah of Iran to see that a community divided from the wealth of oil, and without an effective voice can only remain silent for so long. As Brzezinski has bluntly

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[80] "US waives sanctions on South Pars field" *Oil and Gas Journal* (25 May 1998) at www.findarticles.com/cf_0/m3112/n21_v96/20787069/print.jhtml [18/09/2000].

[81] Roy, ibid.

said, 'Russia can either be an empire or a democracy, but it cannot be both' and the same can be said for Kazakstan, Azerbaijan and Turkmenistan[82].

This thesis has suggested that the plight of the sturgeon is a barometer of multilateral consensus and cooperation in the region. On 11 February 2001 a meeting between international caviar barons and scientists admitted they were 'fighting a losing battle against the grinding poverty' that forces people to poach immature sturgeon[83]. That grinding poverty is a result of the economic mismanagement, itself an outcome of the race to exploit Caspian hydrocarbons. Legislation aside, such as declaring a moratorium on fishing and imposing hefty fines for poaching, the continued survival, or the demise, of the Caspian sturgeon is the best indicator of the level of trust among the littoral states of the Caspian Sea and the amount of geopolitical and geostrategic manoeuvring between them. To date the signs are not promising.

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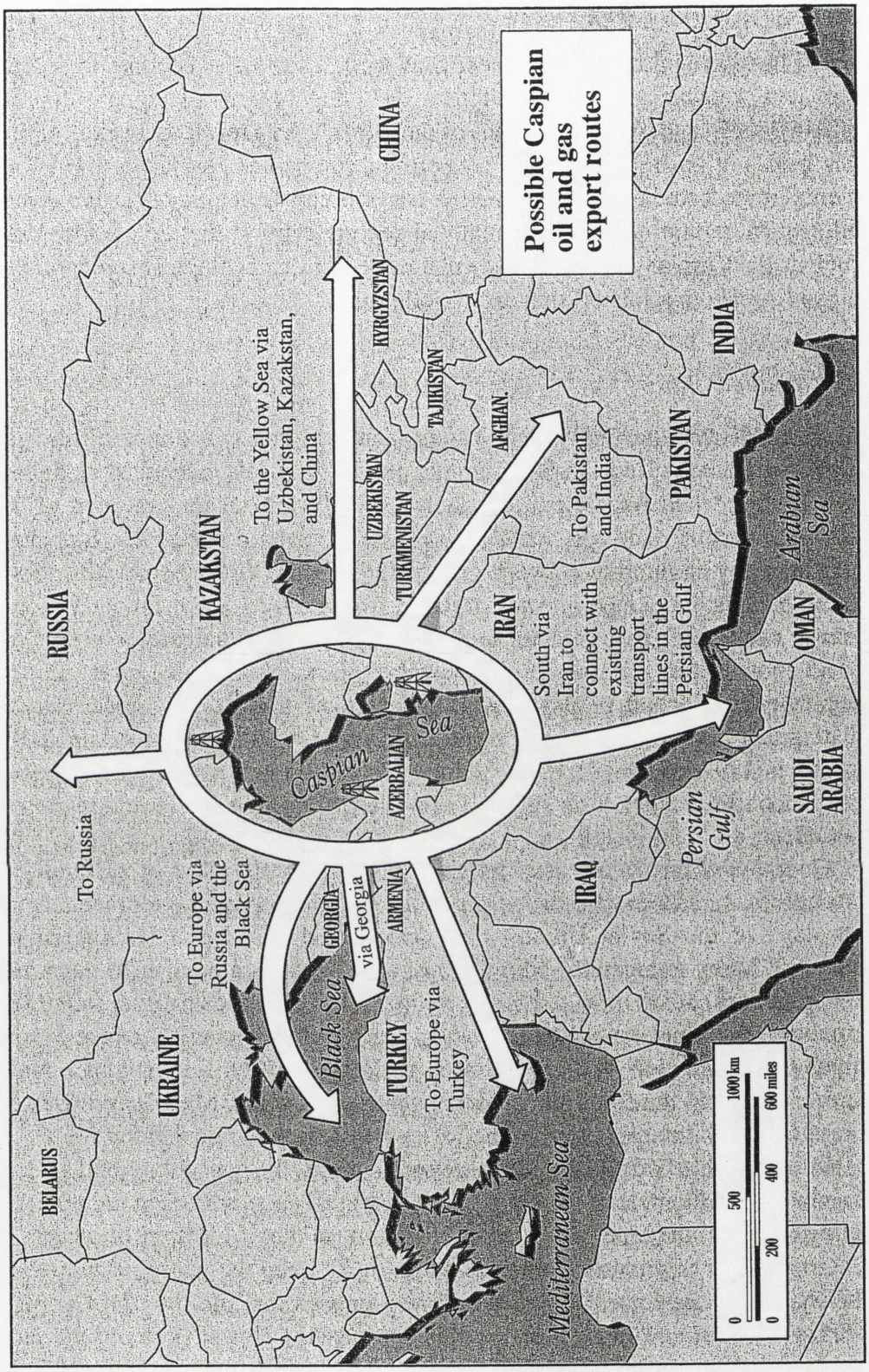
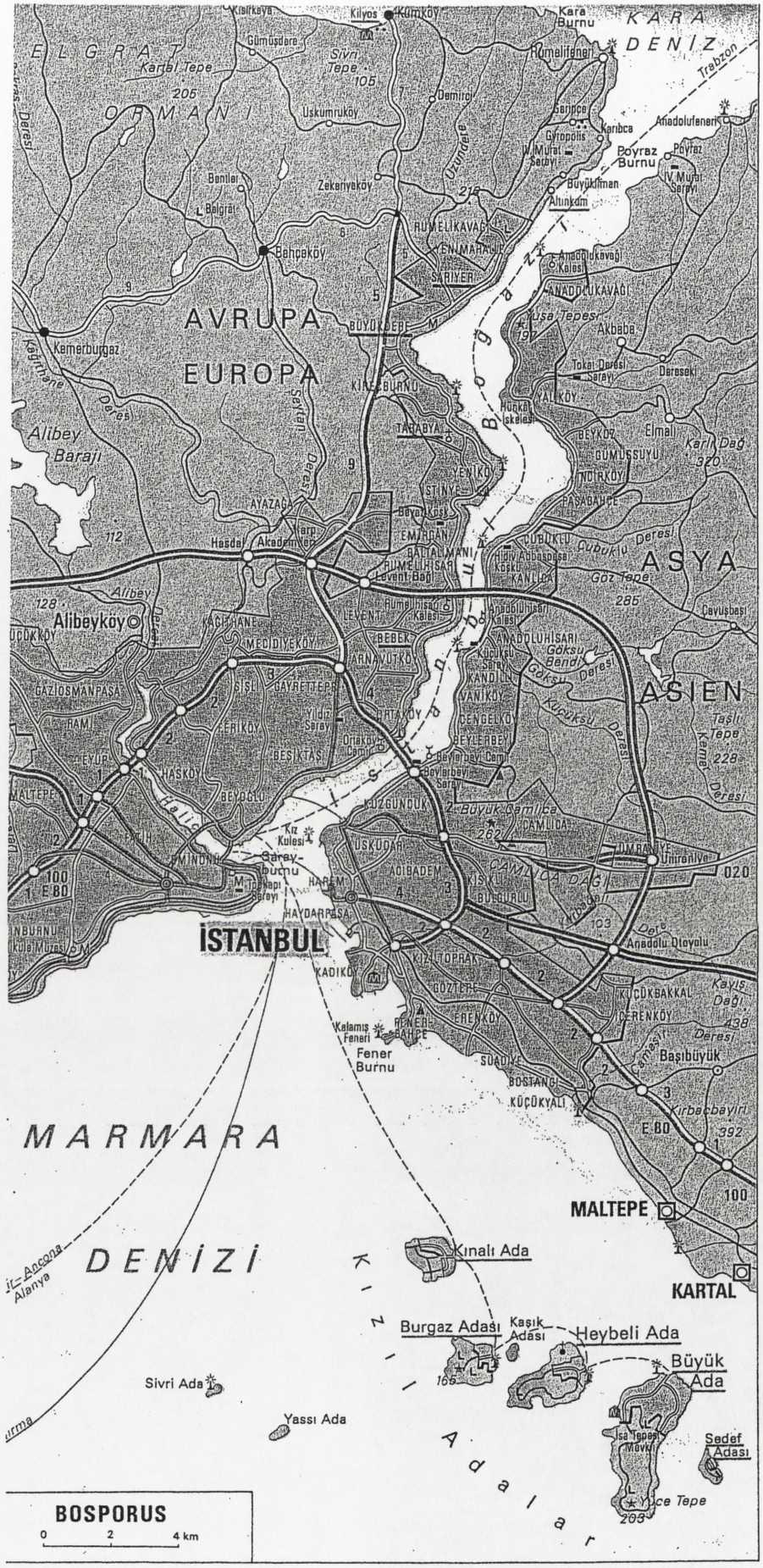
[82] Zbigniew Brzezinski. "The Premature Partnership" *Foreign Affairs* (March-April, 1994). p. 72.

[83] "Caviar barons meet greens in Moscow to save sturgeon" *Reuters* (11/02/2001) via Caspian Clips (International Institute for Caspian Studies: Tehran) E-Mail list [13/02/2001].




**Possible Caspian Hydrocarbon Transport Corridors**[84]

[84] Geoffrey Kemp and Robert E. Harkavy, *Strategic Geography and the Changing Middle East* (Carnegie Endowment for International Peace/ Brookings Institution Press: Washington, 1997). p. 138.

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# Bibliography

Books


**A**

Acton, Edward. *Russia The Tsarist and Soviet Legacy* (London: Longman, 1995).

Akiner, Shirin (ed). *Political and Economic Trends in Central Asia* (London: British Academic Press, 1994).

Akiner, Shirin. *Central Asia: Conflict or Stability* (London: Minority Rights Group, 1997).

Allworth, Edward (ed.). *Central Asia 120 Years of Russian Rule* (Durham: Duke University Press, 1989).

Amineh, Mehdi Parvizi. *Towards the Control of Oil Resources in the Caspian Region.* (Hamburg: Lit Verlag, 1999).

Amirahmadi, Hoosang. "Challenges of the Caspian Region" in Hoosang Amirahmadi (ed). *The Caspian Region at a Crossroad* (New York, St. Martin's Press, 2000). pp. 1-26.

Amirahmadi, Hoosang (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000).

Anderson, John. *The International Politics of Central Asia* (Manchester: Manchester University Press, 1997).

Ayubi, Nazih N. *Overstating the Arab State: Politics and Society in the Middle East* (London: I. B. Tauris, 1995.)

**B**

Babek, Vladimir. "Kazakstan: Big Politics Around Big Oil" in Michael Croissant, and Bülent Aras (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). pp. 181-207.

Baev, Pavel. *Russia's Policies in the Caucasus* (London: Royal Institute of International Affairs, 1997).

Banuazizi, Ali and Weiner, Myron. "Introduction" in Ali Banuazizi and Myron Wiener (eds.). *The New Geopolitics of Central Asia and its Borderlands* (Bloomington: Indiana University Press, 1994). pp. 1-16.

Bateman, Sam and Bates, Stephen (eds.). "Shipping and Regional Security" *Canberra Papers on Defence and Strategy* (Canberra; Australian National University Strategic and Defence Studies Centre, 1998).

Black, Cyril E. et. al. *The Modernization of Inner Asia* (New York: M.E.Sharp, 1991).

Bloom, Harold (ed.). *Rudyard Kipling's Kim* (New York: Chelsea House Publishers, 1987).

Bohr, Annette. *Uzbekistan Politics and Foreign Policy* (London: Royal Institute of International Affairs, 1998).

Brzezinski, Zbigniew. *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997).

C

Campbell, Robert. W. *The Economics of Soviet Oil and Gas* (Washington: Resources for the Future, 1968).

_____ *Trends in the Soviet Oil and Gas Industry* (Washington: Resources for the Future, 1976).

Caroe, Olaf. *Wells of Power* (London: Macmillian and Co Ltd, 1951).

_____*Soviet Empire The Turks of Central Asia and Stalinism (2nd Edition)* (London: Macmillian, 1967).

Casillas, Rex J. *Oil and Diplomacy: The Evolution of American Foreign Policy in Saudi Arabia 1933-1945* (New York: Garland Publishing, 1987).

Chester, Edward W. *United States Oil Policy and Diplomacy* (Westport: Greenwood Press, 1983).

Cooper, Alistair (ed.). *The TIMES Atlas of the Oceans* (Sydney: Angus and Robertson, 1983).

Conant, Melvin, A. and Gold, Fern Racine. *The Geopolitics of Energy* (Colorado: Westview Press, 1978).

Conant Melvin A. *The Oil Factor in US Foreign Policy, 1980-1990* (Lexington: D.C. Heath and Company, 1982).

Critchlow, James. *Nationalism in Uzbekistan: A Soviet Republics Road to Sovereignty* (Boulder: Westview Press, 1991).

Croissant, Cynthia. *Azerbaijan, Oil and Geopolitics* (Comack: Nova Science Publishers, Inc, 1998).

Croissant, Cynthia and Croissant, Michael. "The Legal Status of the Caspian Sea; Conflict and Compromise" in Michael Croissant and Bülent Aras (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). pp. 21-42.

Croissant, Michael and Aras, Bülent (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999).

Curtis, Glenn E. *Kazakstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan Country Studies* (Washington: Federal Research Division,1997).

**D**

Dalby, Simon. "Geopolitics, Knowledge and Power at the End of the Century". in Gearóid Ó Tuanthail et. al. (eds.). *The Geopolitics Reader* (London: Routledge, 1998). pp. 305-312.

Darwisha, Karen and Parrot, Bruce (eds.). *Conflict, Cleavage, and Change in Central Asia and the Caucasus* (Cambridge: Cambridge University Press, 1997).

**E**

Ebel, Robert E. *The Petroleum Industry of the Soviet Union* (NP: Royer and Roger, ND).

Ehteshami, Anoushiravan (ed.). *From the Gulf to Central Asia Players in the New Great Game* (Exeter: University of Exeter Press, 1994).

Eickelman, Dale F. (ed.). *Russia's Muslim Frontiers New Directions in Cross-Cultural Analysis* (Bloomington: Indiana University Press, 1993).

d'Encausse, Héléne Carrére. "The National Republics Lose Their Independence" in Edward Allworth (ed.). *Central Asia 120 Years of Russian Rule* (Durham: Duke University Press, 1989). pp. 254-265.

Evans, Graham and Newnham, Jeffrey. *Dictionary of International Relations* (London: Penguin Books, 1998).

**F**

Ferdinand, Peter (ed.). *The New Central Asia and its Neighbours* (London: Pinter Publishers, 1994).

Forsythe, Rosemarie. *The Politics of Oil in the Caucasus and Central Asia* (London: Oxford University Press, 1996).

Fuller, Graham E. *Central Asia The New Geopolitics* (Santa Monica: RAND, 1992).

_____ "The New Geopolitical Order" in Ali Banuazizi and Myron Wiener (eds.). *The New Geopolitics of Central Asia and its Borderlands* (Bloomington: Indiana University Press, 1994) pp. 19-43.

_____ "Central Asia and American National Interests" in Hafeez Malik (ed.). *Central Asia: Its Strategic Importance and Future Prospects* (New York: St. Martin's Press, 1994). pp. 129-141.

**G**

Glanz, Michael. H, et.al. "Tragedy in the Aral Basin: Looking Back to Plan Ahead ?" in Hafeez Malik (ed.). *Central Asia Its Strategic Importance and Future Prospects* (London: Macmillian Press, 1994). pp. 159-194.

Gleason, Gregory. *The Central Asian States: Discovering Independence* (Colorado: Westview Press, 1997).

Gökay, Bülent. "History of Oil Development in the Caspian Basin" in Croissant, Michael, and Aras, Bülent (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). pp. 3-19.

Golan, Galia. *Russian and Iran A Strategic Partnership ?* (London: Royal Institute of International Affairs, 1998).

Goldenberg, Suzanne. *Pride of Small Nations: The Caucasus and Post-Soviet Disorder* (London: Zed Books, 1994).

Goldman, Marshall I. *The Enigma of Soviet Petroleum* (London: George Allen and Unwin, 1980).

Golubev, Genady N. "Environmental policy-making for sustainable development of the Caspian Sea area" in Iwao Kobori and Michael H. Glantz, (eds.). *Central Eurasian Water Crisis: Caspian, Aral, and Dead Seas* (Tokyo: United Nations University Press, 1998). pp.91-104.

Goodarzy, Hormoz. "Organizational Response to Caspian's Environmental Needs" in Hoosang Amirahmadi (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000). pp. 137-144.

Gorbachev, Mikhail. *Perestroika* (London: William Collins, 1987).

Grove Eric, "The Security of Shipping: The Global Perspective" in Sam Bateman and Stephen Bates (eds.). "Shipping and Regional Security", *Canberra Papers on Defence and Strategy* (Canberra; Australian National University Strategic and Defence Studies Centre, 1998).

**H**

Hardy, Randall W. *China's Oil Future: A Case of Modest Expectations* (Colorado: Westview Press, 1978).

Hauner, Milan. *What is Asia to Us ? Russia's Asian Heartland Yesterday and Today* (London: Routledge, 1992).

Hekimoğlu, Levent. "Caspian Oil and the Environment: Curse or Cure ?" in Croissant, Michael and Aras, Bülent (eds.). *Oil and Geopolitics in the Caspian Sea Region* (Westport: Praeger, 1999). pp. 84-98.

Hiro, Dilop. *Between Marx and Muhammad: The Changing Face of Central Asia* (London: Harper Collins, 1995).

Hoonson, David J. M. *A New Soviet Heartland* (New Jersey: D. Van Norstand Company, 1964).

Hoprik, Peter. *The Great Game: The Struggle for Empire in Central Asia* (New York: America Inc, 1992).

Hunter. Shireen T. *Central Asia Since Independence* (Westport: Praeger, 1996).

Hyman, Anthony. "Central Asia and The Middle East: The Emerging Links" in Mohiaddin Mesbahi (ed.) *Central Asia and the Caucasus after the Soviet Union: Domestic and International Dynamics.* (Gainesville: University Press of Florida, 1994). pp. 248-267.

**I**

Ingram, Edward. *Beginning of the Great Game in Asia 1828-1834* (Oxford: Clarendon Press, 1979).

_____*Britain's Persian connection 1798-1828: Prelude to the Great Game in Asia* (Oxford: Clarendon Press, 1992)

**J**

Jawad, Nassim and Tadjbakhsh, Shahrbanou. *Tajikistan: Forgotten Civil War* (London: Minority Rights Group, 1995).

Jones, Peter Ellis. *Oil A practical guide to the economics of world petroleum* (Cambridge: Woodhead-Faulkner, 1988).

Jonson, Lena. *Russia and Central Asia: A New Web of Relations* (London: Royal Institute of International Affairs, 1998).

Jukes, Geoffrey. *The Soviet Union in Asia* (Sydney: Angus and Robertson/Australian Institute of International Affairs, 1973).

**K**

Karabalin, U., et al. "Kazakstan: The Energy Sector on the Eve of the 21st Century" in Preeti Soni (ed.). *Energy and Environmental challenges in Central Asia and the Caucasus: Windows for Co-operation* (New Delhi: Tata Energy Research Institute, 1996). pp. 209-218.

Karimov, Islam. *Uzbekistan on the Threshold of the Twenty-First Century* (New York: St. Martin's Press, 1998).

Kasenov, Oumerserik. "Russia, Transcaucasia and Central Asia: Oil, Pipelines, and Geopolitics" in Roald Z. Sagadeev and Susan Eisenhower (eds.). *Central Asia Conflict Resolution and Change.* (Chevy Chase: CPSS Press, 1995). pp. 67-80.

Kemp, Geoffrey and Harkavy, Robert E. *Strategic Geography and the Changing Middle East* (Carnegie Endowment for International Peace/ Brookings Institution Press: Washington, 1997).

Kipling, Rudyard. *Kim* (Hertfordshire: Wordsworth Classics, 1993).

Kilnghoffer, Arthur Jay. *The Soviet Union & International Oil Politics* (New York: Columbia University Press, 1977).

Kobori, Iwao and Glantz, Michael H. (eds.). *Central Eurasian Water Crisis: Caspian, Aral, and Dead Seas* (Tokyo: United Nations University Press, 1998).

Krader, Lawrence. *Peoples of Central Asia* (Bloomington: Indiana University Press, 1962).

Krag, Helen and Funch Lars. *The North Caucasus: Minorities at the Crossroads* (London: Minority Rights Group, 1994).

Kryukov, Valery and Moe, Arlid. *The New Russian Corporatism ? A Case Study of Gazprom* (London: Royal Institute of International Affairs, 1996).

Kryukov, Valery and Moe, Arlid. *The Changing Role of Banks in the Russian Oil Sector* (London: Royal Institute of International Affairs, 1998).

**L**

Lewarne, Stephen. *Soviet Oil The Move Offshore* (Colorado: Westview Press, 1988).

**M**

MacFarlane, S. Neil. *Western Engagement in the Caucasus and Central Asia* (London: Royal Institute of International Affairs, 1999).

Mackinder, (Sir) Halford J. *The Scope and Methods of Geography and the Geographical Pivot of History* (London: Royal Geographic Society, 1951).

Malik, Hafeez (ed.). *Central Asia Its Strategic Importance and Future Prospects* (London: Macmillian Press, 1994).

Mandelbaum, Michael (ed.). *Central Asia and the World* (New York: Council on Foreign Relations, 1994).

Matveena, Anna. *The North Caucasus Russia's Fragile Border Land* (London: Royal Institute of International Affairs, 1999).

Menashri, David (ed.). *Central Asia meets the Middle East* (London: Frank Cass Publishers, 1998).

Mesbahi, Mohiaddin (ed.). *Central Asia and The Caucasus after the Soviet Union: Domestic and International Dynamics* (Gainesville: University of Florida Press, 1994).

Mitchell, John V. et.al. *The New Geopolitics of Energy* (London: Royal Institute of International Affairs, 1996).

Miyamoto, Akira. *Natural Gas in Central Asia: Industries, Markets and Export Options of Kazakstan, Turkmenistan and Uzbekistan* (London: Royal Institute of International Affairs, 1997).

Morgan, Gerald. *Anglo-Russian Rivalry in Central Asia: 1810-1895* (London: Frank Cass, 1981).

Mostashari, Firouzeh. "Development of Caspian Oil in Historical Perspective" in Hoosang Amirahmadi, (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000). pp. 89-104.

Mozaffari, Mehdi. (ed.) *Security Politics in the Commonwealth of Independent States* (New York: St. Martin's Press, 1997).

_____ "The Oil and Gas of the Caspian Sea: Regional Cooperation and Competition" in Mehdi Mozaffari (ed.) *Security Politics in the Commonwealth of Independent States*. (New York: St. Martin's Press, 1997). pp. 198-206.

**N**

Namazi, Siamak. "The Caspian's Environmental Woes" in Hoosang Amirahmadi (ed.). *The Caspian Region at a Crossroad* (New York: St. Martin's Press, 2000). pp. 121-136.

Naumkin, Vitaly V. (ed.). *Central Asia and Transcaucasia: Ethnicity and Conflict* (Connecticut: Greenwood Press, 1994).

Niyazi, Aziz. "Tajikistan" in Mohiaddin Mesbahi, (ed.) *Central Asia and The Caucasus after the Soviet Union: Domestic and International Dynamics.* (Gainesville: University of Florida Press, 1994). pp . 164-190.

Nove, Alec. *An Economic History of the USSR (2nd Edition)* (London: Penguin Books, 1989).

**O**

Ó Tuanthail Gearóid, et. al. (eds.). *The Geopolitics Reader* (London: Routledge, 1998).

Ó Tuanthail, Gearóid and Agnew, John. "Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy" in Gearóid Ó Tuanthail et. al. (eds.). *The Geopolitics Reader* (London: Routledge, 1998). pp.78-94.

Olcott, Martha Brill. "Central Asia's Political Crisis" in Dale F. Eickelman (ed.). *Russia's Muslim Frontiers: New Directions in Cross-Cultural Analysis* (Bloomington: Indiana University Press, 1993). pp. 49-62.

_____"Emerging Political Elites" in Ali Banuazizi and Myron Wiener (eds.). *The New Geopolitics of Central Asia and its Borderlands* (Bloomington: Indiana University Press, 1994) pp. 44-67.

_____*The Kazakhs (2nd Edition)* (Stanford: Hoover Institution Press, 1995).

_____*Central Asia's New States: Independence, Foreign Policy and Regional Security* (Washington: United States Institute of Peace Press, 1996).

Owen, Edgar Wesley. *Trek of the Oil Finders: A History of Exploration for Petroleum* (Tulsa: The American Association of Petroleum Geologists, 1975).

**P**

Paik, Keun-Wook. *Gas and Oil in Northeast Asia* (London: Royal Institute of International Affairs, 1995).

Peimani, Hooman. *Regional Security and the Future of Central Asia: The Competition of Iran, Turkey and Russia* (Connecticut: Praeger, 1998).

*Philip's Encyclopaedic Atlas (2nd Edition)* (London: George Philip, 1993).

Polonskaya, Ludmila and Malashenko, Alexi. *Islam in Central Asia* (Reading: Ithaca Press, 1994).

Promfret, Richard. *The Economies of Central Asia* (New Jersey: Princeton University Press, 1995).

**Q**

**R**

Rashid, Ahmed. *The Resurgence of Central Asia: Islam or Nationalism.* (Karachi: Oxford University Press, 1994).

_____*Taliban: Islam, Oil and the New Great Game in Central Asia* (London: I. B. Tauris, 2000).

Roberts, John. *Caspian Pipelines* (London: Royal Institute of International Affairs, 1996).

Robertson, David. *Dictionary of Politics 2nd Edition* (London: Penguin Books, 1993).

Ro'I, Yaacov. (ed.). *Muslim Eurasia: Conflicting Legacies* (London: Frank Cass, 1995).

**S**

Sagadeev, Arthur. "Great Power Ideology and the Muslim Nations of the CIS" in Mohiaddin Mesbahi, (ed.) *Central Asia and The Caucasus after the Soviet Union: Domestic and International Dynamics.* (Gainesville: University of Florida Press, 1994). pp. 234-247.

Saikal, Amin. *The Rise and Fall of the Shah* (Princeton: Princeton University Press, 1980).

Saikal, Amin and Maley, William (eds.). *Russia in Search of its Future* (Cambridge: Cambridge University Press, 1995).

Saikal, Amin. "Russia and Central Asia" in Amin Saikal and William Maley (eds.). *Russia in Search of its Future* (Cambridge: Cambridge University Press, 1995). pp. 142-157.

Sampson, Anthony. *The Seven Sisters (New Edition)* (Sevenoaks: Hodder and Stoughton, 1993).

Shaffer, Ed. *The United States and the Control of World Oil* (Kent: Croom Helm, 1983).

Shaffer, Brenda. "Epilogue" in David Menashri (ed.). *Central Asia Meets the Middle East* (London: Frank Cass, 1998). pp. 228-236.

Sharma, Shankar and Tan, Joseph L. H. (eds.). *Global Oil Trends: The Asia-Pacific Market in the 1990's* (Singapore: Institute of Southeast Asian Studies, 1991).

Shashenkov, Maxim "Russia in Central Asia: Emerging Security Links" in Anoushiravan Ehteshami *From the Gulf to Central Asia: Players in the New Great Game* (Exeter: University of Exeter Press, 1994). pp. 168-187.

Shimizu, Manabu. (ed.) "The Caspian Power Basin and Its Impact on Eurasian Power Games" *IDE Spot Survey* (Tokyo: Institute of Developing Economies, 1998).

Skagen, Ottar. *Caspian Gas* (London: Royal Institute of International Affairs, 1997).

Snyder, Jed C. (ed.). *After Empire: The Emerging Geopolitics of Central Asia* (Washington: National Defense University Press, 1995).

Sokolsky, Richard and Charlick-Paley, Tanya. *NATO and Caspian Security A Mission Too Far ?* (Washington: RAND, 1999).

Sun, Zhuangzhi. "Central Asia's Transition to a Market Economy: An Analytical Comparison with China", in Yongjin Zhang, and Rouben Azizian, (Eds.). *Ethnic Challenges Beyond Borders: Chinese and Russian Perspectives of the Central Asian Conundrum* (London: Macmillian Press, 1998). pp. 147-165.

Suny, Ronald Grigor. *The Making of the Georgian Nation (2nd Edition)* (Bloomington: Indiana University Press, 1994).

**T**

Tilley, Charles. "Reflections on the History of European State-Making" in Charles Tilley (ed.). *The Formation of National States in Europe* (New Jersey: Princeton University Press, 1975). pp. 3-83.

Toft, Robert W. *The Russian Rockefellers The Saga of the Nobel Family and the Russian Oil Industry* (Stanford: Hoover Institution Press, 1976)

Tsukatani, Tsuneo. "The Aral Sea and socio-economic development" in Kobori, Iwao and Glantz, Michael H. (eds.). *Central Eurasian Water Crisis: Caspian, Aral, and Dead Seas* (Tokyo: United Nations University Press, 1998). pp. 53-88.

**U**

**V**

Verrier, Anthony. *Francis Younghusband and the Great Game* (London: Cape, 1991).

**W**

White, Paul J, & Logan, William S. (eds.). *Remaking the Middle East* (Oxford: Berg, 1997).

**X**

**Y**

Yergin, Daniel. *The Prize* (New York: Touchstone/Simon and Schuster, 1992).

Yergin, Daniel and Gustafson, Thane. *Russia 2010 and What it Means for the World* (London: Nicholas Brealey Publishing, 1994).

**Z**

Zhang, Yongjin and Azizian, Rouben (Eds.). *Ethnic Challenges Beyond Borders: Chinese and Russian Perspectives of the Central Asian Conundrum* (London: Macmillian Press, 1998).

Zviagelskaya, Irina D. "Central Asia and Transcaucasia: New Geopolitics" in Vitaly V. Naumkin (ed.). *Central Asia and Transcaucasia: Ethnicity and Conflict.* (Westport: Greenwood Press, 1994). pp. 127-156.

# Bibliography

Journal Articles, Serials, Newspaper Articles,

Press Releases and

Internet Based Material


"50,000 evacuated as Caspian Sea rises". *Greenpeace Climate impact database* www.greenpeace.org/~climate/database/records/zgpz0845.html [13/05/1999].

**A**

"A Caspian Gamble: A Survey of Central Asia" *The Economist* (7 February 1998). pp. 1-18.

Adams, Terry. "Caspian Hydrocarbons, the Politicisation of Regional Pipelines, and the Destabilisation of the Caucasus" *Caucasian Regional Studies*, Volume 5 Issue 1 & 2 at www.ceps.be/Pubs/Caucasus/adams.htm [11/08/2000].

Alexandrov, Mikhail. "Russian migration to Kazakstan" *Russian and Euro-Asian Bulletin*, June 1996 at www.cerc.unimelb.edu.au/bulletin/buljun.htm [10/01/2000].

_____"Russian-Kazakh Contradictions on The Caspian Legal Status" *Russian and Euro-Asian Bulletin*, Volume 7, Number 2, (February 1998), pp.1-11.

Aliriza, Bülent. "The Clear and Present Danger in the Turkish Straits", *CSIS Energy Update* at www.csis.org/turkey/CEU000115.html [18/08/2000].

Amirahmadi, Hooshang. "Oil at the Turn of the Twenty-First Century" *Working Paper Number 83* (Center for Urban Policy Research, Rutgers, the State University of New Jersey), (1994).

Apostolou, Andrew. "Changing US Administration Provides Opportunity for review of Caspian Policy" *Eurasianet Business and Economics* at www.eurasianet.org/departments/business/articles/eav010401.shtml [09/01/2001].

**B**

Badkhen Anna, "Oil Rush may kill Caspian Ecosystem', *The Times of Central Asia* Wednesday, 2 August, 2000, Volume 2, Issue 30 (73) as of July 27 at www.times.kg/2000/N30/fea-02.shtml [02/08/2000].

Barnes, Joe. "US National Interests in the Caspian Basin" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper*. James A. Baker III Institute for Public Policy (April 1998) at www.riceinfo.rice.edu/projects/baker/publications/efcac9.html [28/12/98].

Barylski, Robert V. "Russia, the West, and the Caspian Energy Hub" *The Middle East Journal* Volume 49, Number 2, (Spring, 1995), pp. 217-232.

Biliouri Daphne, "Caspian Region Strives to Balance Offshore Oil Development With Environmental Concerns" *Eurasianet Environment* August 21, 2000 at www.eurasianet.org/departments/environment/articles/eav032000.shtml [21/08/2000].

Brauer, Birgit. "Oil Price Hike: Curse for Kazkhstani People, Blessing for Russia" *Central Asia Caucasus Analyst* (January 5 2000) at www.cacianalyst.org/Headline4.htm [06/01/2000].

Brown, Bess, A. "Authoritarianism in the New States of Central Asia: An Overview of Post-Independence Politics" *Bericht des BIOst*, (Nr 46/1996).

Brzezinski, Zbigniew. "The Premature Partnership" *Foreign Affairs*, (March-April, 1994).

**C**

Campbell, Colin J. "Letter to the Editor (of Foreign Affairs)" (8 January 2000) at www.oilcrisis.com/campbell/foreignaffairs200001.htm [07/08/2000].

"Can Novorossiysk Handle the Caspian Oil Boom ?" *Central Asia Caucasus Analyst* (14 February 1999) at www.cacianalyst.org/archives/issue%203,20Feb%2099/Oil%20Boom.htm [15/08/2000].

"Caspian Environmental Issues" (December 1998) *United States Energy Information Administration*, at www.eia.doe.gov/emeu/cabs/capslaw.html [04/02/1999].

"Caspian Legal Issues" (December 1998) *United States Energy Information Administration*, at www.eia.doe.gov/emeu/cabs/capslaw.html [04/02/1999].

"Caspian Sea Region" (December 1998) *United States Energy Information Administration*, at www.eia.doe.gov/cabs/Caspian.html [03/02/1999].

*Caspian Region Promise and Peril* (MAP) (National Geographic Society: Washington, 1999).

"Caspian states bypass Russia with lucrative export route" *The Iranian*, at www.iranian.com/News/Dec97/gas.html [06/01/2000].

"Caspian Tables, Maps" (June 2000) *United States Energy Information Administration* at www.eia.doe.gov/emeu/cabs/caspian.html [05/12/2000].

"The Caspian's untapped mineral wealth" *BBC News* at www.bbc.co.uk/hi/english/world/analysis/newsid_127000/127670.stm [04/01/2000].

"Caviar barons meet greens in Moscow to save sturgeon" *Reuters* (11/02/2001) via Caspian Clips (International Institute for Caspian Studies: Tehran) E-Mail list [13/02/2001].

"Central Europe's Needs and New Caspian Suppliers", *CIS Special Reports* at www.stratfor.com/CIS/specialreports/special23.htm [23/06/2000].

Chalidze, Francheska. "Aral Sea Crisis: A Legacy of Soviet Rule" *Central Asia Monitor*, No.1, 1992 at www.chalidze.com/cam/02,1,2.htm[02/12/2000].

"Chevron and Texaco agree to $100 billion merger creating top-tier integrated energy company", *Press Release* at www.chevron.com/newvs/pressrel/2000/200-10-16html [12/2000].

Christoffersen, Gaye. "China's Intentions for Russian and Central Asian Oil and Gas" *NBR Analysis*, Volume 9, Number 2, (March 1998).

Clagett, Brice M. "Ownership of Seabed and Subsoil Resources in the Caspian Sea Under the Rules of International Law" *Caspian Crossroads Magazine*, Volume 1, Number 3, (Summer/Fall1995), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

Cornell, Svantee E. "Conflicts in the Northern Caucasus" *Central Asian Survey*, Volume 17 Number 3 (1998), pp. 409-441.

Cullen, Robert. "The Caspian Sea" *National Geographic* Volume 195, Number 5 (May, 1998), pp. 2-35.

**D**

Dariaie, Nasrin Mohammad-Pour. "Oil Pollution in the Caspian Sea" *The Times of Central Asia* Wednesday, 2 August, 2000, Volume 2, Issue 30 (73) as of July 27 at www.times.kg/2000/N30/fea-04.shtml [02/08/2000].

Daly, John. "Oil, Guns and Empire: Russia, Turkey, Caspian "New Oil" and the Montreaux Convention" *Caspian Crossroads Magazine* Volume 3, Number 2 (Fall, 1997) at www.ourworld.compuserve.com/homepages/usazerb/325.htm [28/12/98].

Dion, Richard R. "Long view of Caspian oil export options tilts to Kazakstan-China" *Oil and Gas Journal* (7 June 1999) at www.findarticles.com/cf_0/m3112/23_97/54906401/print.jhtml [18/09/2000].

"Disaster "near-missed" in the Strait of Istanbul" at www.turkishpilots.org/NEWS/20000727_Iris_Star_Near_Miss.htm [10/12/2000].

*Dow Jones International News* (11/01/2000) via Caspian Clips (International Institute for Caspian Studies: Tehran) E-Mail list [11/01/2000].

**E**

Ebneyousef, Hossein. "Caspian Oil and Gas Development: Situation and Prospects" *Silk Road*, Volume 1, Number 1 (October 1997).

Edwards, Mike. "The Fractured Caucasus" *National Geographic*, Volume 189, Number 2, (February 1996), pp. 126-131.

"Eighteen cities come under threat as sea level rises in the Caspian". *Greenpeace Climate impact database* at www.greenpeace.org/~climate/database/records/zgpz0339.html [13/05/1999].

Ellison, Herbert J. and Acker, Bruce A. "The New Russia and Asia: 1990-1995" *NBR Analysis*, Volume 7, Number 1, (June 1996).

Erickson, John. "Russia will Not be Trifled with: Geopolitical Facts and Fantasies" *The Journal of Strategic Studies* Volume 22, Numbers 2/3 (June-September 1999), pp 242-268.

**F**

Fink, Michael. "Disempowerment Through Democratization: Recent Elections in Kazakhstan and Tajikistan" *Central Asia Caucasus Analyst* (November 24 1999) at www.cacianalyst.org/Nov%2024/Fink.htm [06/01/2000].

Fuller, Graham E. "The Emergence of Central Asia" *Foreign Policy*, Number 78, (Spring 1990), pp. 49-67.

_____"Geopolitical Dynamics of the Caspian Region" *Caspian Crossroads Magazine*, Volume 3, Number 2, (Fall, 1997), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/1998].

**G**

Gaddy, Dean E. "Rig Clubs help alleviate Caspian Sea drilling Shortage" *Oil and Gas Journal* (November 8 1999) at www.findarticles.com/cf_0/m3115/45_9757888215/print.html [14/09/2000].

"Gas pipeline open for business" *BBC News* (December 29 1997) www.nes1.thls.bbc.co.uk/hi/english/world/s/w_asia/newsid_43000/43103.stm [06/01/2000].

"General Information Caspian Sea", *Caspian Environment Programme* at www.caspianenvironment.org.htm [09/01/2001].

"Giving a green boost" *News and Topics* at www.statoil.com [05/03/1999].

Goble, Paul A. "Stalin Draws the borders" *Central Asia Monitor* Volume 2, (1995), pp. 12-14.

Gorst, Isabel and Poussenkova, Nina. "Petroleum Ambassadors of Russia: State versus Corporate Policy in the Caspian Region" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper* James A. Baker III Institute for Public Policy (April 1998) at www.riceinfo.rice.edu/projects/baker/publications/efcac1.html [28/12/98].

Gretsky, Sergei. "Russia's Policy Toward Central Asia" *Journal of Social and Political Studies* at www.ca-c.org/dataeng/GRETSKY.shtml [18/08/2000].

**H**

Hassanov, Jamil. "The Struggle for Azerbaijani Oil At the end of the First World War" *Caspian Crossroads Magazine*, Volume 2, Number 4, (Spring, 1997), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

Heslin, Shelia. "Key Constraints to Pipeline Development: Status, Significance and Outlook" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April 1998) at www.riceinfo.rice.edu/projects/baker/publications/efcac2.html [28/12/98].

Hoffman, David I. "Oil Development in Post-Soviet Azerbaijan" in "Energy Wealth and Development in Central Asia and the Caucasus" *NBR Analysis*, Volume 10, Number 3, (August 1999).

Hundley, Tom. "Caspian Sea Oil: A prize the US wants to control" *Chicago Tribune* (25 November 1999) via Eurasia Geopolitics email list [01/12/1999].

**I**

"Iran stresses opposition to Turkmen pipeline project" *The Iranian*, at www.iranian.com/News/March99/turkmen.html [06/01/1999].

"Iranian media reports on new gas pipeline" *BBC News* (December 29 1997), at www.nes1.thls.bbc.co.uk/hi/english/world/monitoring/newsid_43000/43226.stm [06/01/2000].

**J**

Jaffe, Amy Myers and Manning, Robert A. "The Myth of the Caspian 'Great Game': The Real Geopolitics of Energy" *Survival*, Volume 40, Number 4, (Winter 1998-1999), pp. 112-129.

_____"The Shocks of a World of Cheap Oil" *Foreign Affairs* Volume 79, Number 1 (January/February, 2000), pp. 16-29.

Joseph, Ira B. "Caspian Gas Exports: Stranded Reserves in a Unique Predicament" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April, 1998) at www.riceinfo.rice.edu/projects/baker/publications/efcac3.html [28/12/98].

Jukes, Geoffrey. "The Soviet Far East" *Working Paper Number 1990/2* (Australian National University. Department of International Relations), (May 1990).

**K**

Kennan, George "X". "The Sources of Soviet Conduct" *Foreign Affairs*, Volume 25 (July 1947), pp. 566-582.

Kinzer, Stephen. "Caspian Competitors in Race for Power on Sea of Oil" *New York Times on the Web* (24 January 1998) at www.nytimes.com [17/02/1999].

_____ "On Piping Caspian Oil, US insists the Cheaper, Shorter way isn't better" *New York Times on the Web* (8 November 1998) at www.nytimes.com [17/02/1999].

Klid, Bohdan. "Ukraine as a Transportation Corridor for Caspian Oil to Europe" *Caspian Crossroads Magazine*, Volume 3, Number 1 (summer 1997) at www.ourworld.compuserve.com/homepages/usazerb/313htm. [28/12/1998].

Kochumov, Yagmur. "Issues of International Law and Politics in the Caspian in the Context of Turkmenistan-Azerbaijan Discussion and Fuel Transportation" *Caspian Crossroads Magazine*, Volume 4, Number 2, (Winter 1999), at www.ourworld.compuserve.com/homepages/usazerb/422.htm [28/12/98].

Kovalev, Feliks. "Caspian Oil: Russian Interests" *International Affairs*, Volume 43, Number 3 (1997), pp. 48-54.

Krag, Helen and Funch, Lars. "The North Caucasus: Minorities at a Crossroad" *MRG Report* (1994).

**L**

*Law of the Sea Convention* at www.tuffs.edu/departments/fletcher/mulit/sea.html [11/12/1999].

LeVine, Steve. "Caspian Logic: Democracy ? Sure, Sure. Now Buy our Oil." *New York Times on the Web* (3 January 1999) at www.nytimes.com/99/01/03 [17/02/1999].

_____ "Short on Funds, Kazakhstan to Sell off the Vast Tengiz Oilfield" *New York Times on the Web* (19 August 1999), www.nytimes.com/99/08/19/financial [20/08/1999].

Luong, Pauline Jones. "Kazakhstan: The Long Term Costs of Short-term Gains" in "Energy Wealth and Development in Central Asia and the Caucasus" *NBR Analysis*, Volume 10, Number 3, (August 1999).

"Long-term EBRD financing to rescue Kazak Caspian Port of Aktau" *Press Release* 16 April 1996 at www.ebrd.com/english/opera/PRESSREL/pr1996/27apr16.htm [01/12/2000].

Lubin, Nancy. "Energy Wealth, Development and Stability in Turkmenistan" in "Energy Wealth, Development and Stability in Central Asia and the Caucasus" *NBR Analysis*, Volume 10, Number 3, (August 1999).

"LUKoil expands Cooperation with the Ukraine" *Press Release* (14 October 1999) via LUKoil E-mail list.

"LUKoil has Russia's first Caspian oil discovery" *Press Release* (3 April, 2000) at www.findarticles.com/cf_1/m3112/14_98/61693476/print.jhtml [06/12/2000].

"LUKoil launched drilling of the second exploratory well at the Severny license area in the Caspian" *Press Release* (2 June, 2000) via LUKoil email list.

"LUKoil to Acquire Getty in First Acquisition of Publicly Held US Company by a Russian Corporation" *Press Release* (3 November, 2000) via LUKoil email list.

**M**

MacDougall, James. "A New State in US-Caspian Sea Basin Relations" *Journal of Social and Political Studies* at www.ca-c.org/dataeng//st_04_dougall.shtml [18/08/2000].

Matzke, Richard H. "Pipelines to Progress: FSU Oil exports Past, Present, Future", *National Association of Petroleum Investment Analysts* (21 May 1997) at www.chevron.com/chevron_root/newsvs/speeches/1997/97-5-21-matzke.html [26/12/1998].

_____"Chevron's Caspian Commitment" *Fifth Kazakstan International Oil and Gas Exposition* (Almaty, 2 October 1997) at www.chevron.com/chevron_root/newvs/speeches/1997/97-10-02.html [01/02/2000].

Maxwell, Nigyar. "The Oil Issue in the Policy of Azerbaijan's Government in 1918-1920" *Caspian Crossroads Magazine*, Volume 2, Number 3, (Winter, 1997) at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

Melet, Yasmin. "China's political and economic relations with Kazakhstan and Kyrgyzstan" *Central Asian Survey*, Volume17, Number 2, (1998), pp. 229-252.

Menon, Rajan. "Central Asia's Foreign Policy and Security Challenges: Implications for the United States" *NBR Analysis* Volume 6, Number 4 (1995).

_____"Treacherous Terrain: The Political and Security Dimensions of Energy Development in the Caspian Sea Zone" *NBR Analysis*, Volume 9, Number 1, (February 1998).

Mesbahi, Mohiaddin. "Russian Foreign Policy and Security in Central Asia and The Caucasus" *Central Asian Survey*, Volume 12, Number 2, (1993). pp. 181-215.

Mirfendereski, Guive. "Lost at Sea" *The Iranian,* (October 29 1998) www.iranian.com/GuiveMirfendereski/Oct98/Caspian/index.html [06/01/2000].

Moore, Molly. "The Bosporus: A Clogged Artery" *Washington Post* (16 November 2000) at www.washingtonpost.com/wp-dyn/articles/A28625-2000Nov15.html [10/12/2000].

Morgan, T. Clifton, et.al. "United States Policy Toward Iran: Can Sanctions Work ?" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April, 1998) at www.riceinfo.rice.edu/projects/baker/publications/uspti/uspti.html [15/08/2000].

Mukhin, V. "The Slav Factor in the Muslim CIS States" *Armiya*, (October 1994), pp. 20-26.

**N**

"Navigational and Environmental Safety in the Turkish Straits" *Republic of Turkey Embassy Website* at www.ozemail.com.au/~tuksembs/strait1.htm [18/02/2000].

Nelan, Bruce W. "The Rush for Caspian Oil" *Time*, (May 4 1998), pp. 36-38.

"Norway: Bosporus not suitable as oil route" *Lloyd's List Newspaper*, cited at www.turkishpilots.org/NEWS/2000_11_09_Lloyds_List_Bosporus_Not_Suitable_as_oil_Route.htm [11/12/2000].

**O**

"OAO LUKoil has total reserves of 23 billion barrels of oil and 6.6 trillion cubic feet of gas" *Press Release* (29 August 2000) via LUKoil email list.

Ochs, Michael. "Turkmenistan: Pipeline Dream II" *Caspian Crossroads Magazine*, Volume 1, Number 1, (Winter 1995), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

"Oil" *BP Amoco Statistical review of World Energy 2000* at www.bpamoco.com/worldenergy/oil [05/12/2000].

"Oil Companies Kill Kazakh Seals" *The Times of Central Asia*, Wednesday, 2 August, 2000, Volume 2, Issue 30 (73) as of July 27 at www.times.kg/2000/N30/fea-01.shtml [02/08/2000].

Olcott, Martha Brill. "Oil and Politics in Kazakhstan" *Caspian Crossroads Magazine*, Volume 1, Number 1, (Winter 1995), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

_____"Pipelines and Pipe Dreams: Energy Development and Caspian Society" *Journal of International Affairs*, Volume 53, Number 1, (Fall, 1999), pp. 305-323.

O'Sullivan, Diarmid. "Pipe dreams come closer to reality" *MEED* (28 March 1997). pp.2-3.

Oxman, Bernard H. "Caspian Sea or Lake: What Difference Does It Make ?" *Caspian Crossroads Magazine*, Volume 1, Number 4 (Winter 1996), at www.ourworld.compuserve.com/homepages/usazerb/casp.htm [28/12/98].

**P**

Partridge, Ben. "Caspian Sea: Oil-Rich Caspian Nations Should Emulate Norway's Model" *Radio Free Europe/Radio Liberty* (9 July 1999) at www.rfefl.org/nca/features/1999/07/F.R.U.990709135224.html [23/07/1999].

Pickering, Thomas R. "Russia and the US in the Middle East and Central Asia" *Occasional Paper* (Australian National University, Centre for Middle Eastern and Central Asian Studies), (August 1996).

Pope, Hugh. "Pledges Oil Funds For Caspian Sea Region" *The Iranian*, at www.iranian.com/News/June98/army.html [06/01/2000].

*Press Release* Turkish Embassy (Washington) at www.turkey.org/releases/102498.htm [31/12/1998].

**Q**

**R**

"Race to Unlock Central Asia's energy riches" *BBC News* (29 December 1997) at www.nes1.thls.bbc.co.uk/hi/english/world/analysis/newsid_43000/43219.stm [06/01/2000].

Remp, Steve. "Dancing with Elephants Pioneering Oil and Gas in the Caspian, Central and Eastern Europe", *Central Asian Caucasus Analyst Forum Summary* (19 May 1999) at www.cacianalyst.org/forumsummaries/may%20Elephants.htm [16/06/2000].

Rosen, Captain Mark. "The Black Sea and her approaches: Will there be fair winds and following seas ?" *Caspian Infrastructure: Roads Rails and Pipelines Conference* (11-12 December 1997) at www.sipa.columbia.edu/RESOURCES/CASPAIN/inf_p15.html. [02/02/2000].

Roy, Olivier. "Crude Manoeuvres" *Index OnLine* (Issue 4/97) at www.oneworld.org/index_oc/issue497/roy.html [11/08/2000].

Ruseckas, Laurent. "State of the Field Report: Energy and Politics in Central Asia and the Caucasus" *Access Asia* Volume 1, Number 2, (July 1998) at www.accessasia.org/products/aareview/Vol1No2/essay2.html [21/12/98].

"Russia seeks to Expand Control of Ukraine" at www.stratfor.com/CIS/commentary/0002250112.htm [23/06/2000].

"Russia and Kazakhstan share Caspian spoils" *BBC News* (7 July 1998) at www.bbc.co.uk/hi/english/world/s/asia-pacific/newsid_127000/127236.stm [04/01/2000].

"Russian Pipeline Plans Prevent Pilfering" at www.stratfor.com/CIS/commentary/0003172341.htm [23/06/2000].

Rutland, Peter. "Lost Opportunities: Energy and Politics in Russia" *NBR Analysis* Volume 8, Number 5 (1997).

**S**

"Safety of Navigation" *Republic of Turkey Embassy Website* at www.ozemail.com.au/~turkembs/navigate.htm [31/12/1998].

*Sawfish and 'caviar-fish' pay dearly for their distinction.* www.greenpeace.org/~comms/97/bio/cities04.html [13/05/1999].

Sciolino, Elaine. "It's a Sea, It's a Lake ! No. It's a Pool of Oil !" *New York Times on the Web* (21 June 1998) at www.nytimes.com [17/02/1999].

"Seals' Deaths Linked to Major Joint Venture", *The Oil Daily* (8 June 2000) at www.findarticles.com/cf_0/m3TOD/110_50/62595760/p1/article.jhtml [01/12/2000].

"Semi-Submersibles" *World Oil* (December 1999) at www.findarticles.com/cf_0/m3159/12_220/60004638/print.html [18/09/2000].

Shelley, Louise. "Corrupt Oil Practices Implicate President Nazarbayev" *Central Asia Caucasus Analyst* (19 July 2000) at www.cacianalyst.org/Headline1.htm [26/07/2000].

Sloan, Geoffrey and Gray, Colin S. "Why Geopolitics" *The Journal of Strategic Studies* Volume 22, Number 2/3, (June-September, 1999), pp. 1-11.

Soligo, Ronald and Jaffe, Amy Meyers. "The Economics of Pipeline Routes: The Conundrum of Oil Exports from the Caspian Basin" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April, 1998) at www.riceinfo.rice.edu/projects/baker/publications/pipelines.html [21/12/98].

Shoumikhin, Andrei. "New Developments Related to Caspian Oil" *Perspectives on Central Asia* Volume 1, Number 9 (December 1996) at www.cpss.org/casianw/decpers.html [31/08/1998].

*Statistics* at www.itopf.com/stats.html [12/12/2000].

*Statistics of Passages Through Istanbul Straits Within 1999* at www.turkishpilots.org/DOCUMENTS/statistics/bosporusstat99.html [10/12/2000].

Swietochowski, Tadeusz. "The Caspian as a Region in History" *Oil and Environment Security in the Black and Caspian Sea Conference* (October 30 1998).

**T**

Talbott, Strobe. "A Farewell to Flashman: American Policy in the Caucasus and Central Asia" *Central Asia Caucasus Analyst* at www.caicanalyst.org/forum%20Summaries/july%2021%20Talbott.htm [06/01/2000].

Talwani, Manik, Belopolsky, Andrei and Berry, Dianne L. "Geology and Petroleum Potential of Central Asia" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April 1998) at www.riceinfo.rice.edu/projects/baker/publications/gppca/gppca.html [15/08/2000].

"The 1999 Parliamentary Elections in Kazakstan – Towards Democracy ?" *Central Asia Caucasus Analyst* (3 November 1999) at www.cacianalyst.org/forum%20Summaries/Nov%203%20kazak%20elect.htm [06/01/2000].

Tokayev, Kassmzhomart. "Kazakhstan's Foreign Policy Agenda" *Central Asia Caucasus Analyst* (October 24 1999) www.cacianalyst.org/Forum%Summary/Oct%2024/Fink.htm [06/01/2000].

"The Beluga Sturgeon: Caviar in Danger", *Ted Case Studies*, at www.american.edu/projects/mandala/TED/STURGEON.HTM [04/08/2000].

"Turkmen Natural Gas to Flow to Turkey in 2002" *The Iranian*, at www.iranian.com/News/1999/May/gas.html [06/01/2000].

**U**

*Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper.* James A. Baker III Institute for Public Policy (April, 1998) at www.riceinfo.rice.edu/projects/baker/publications/cipe2.html [23/08/98].

"US waives sanctions on South Pars field" *Oil and Gas Journal* (25 May 1998) at www.findarticles.com/cf_0/m3112/n21_v96/20787069/print.jhtml [18/09/2000].

**V**

**W**

Waelde, Thomas; Vinogradov, Sergei and Zamora, Armando. "The Caspian Dilemma: Prosperity or Conflict?" *Caspian Oil and Gas* at www.poli.vub.ac.be/publi/crs/eng/Vol5/waelde.htm [01/08/2000].

"Water Wars: Part II – The Aral Sea", *BBC News*, cited at www.caspianstudies.com/news/bbc00-03.htm [16/06/2000].

*War for Oil in the Former Soviet Union ?* Video Transcript at www.cdi.org/adm/1219/transcript.html [30/05/2000].

"What a surprise" *The Economist* (17 October 1998), pp. 28-29.

Wihbey, Paul Michael. "The Southern Eurasian Great Game" *IASPS Research Papers in Strategy (April 1999, Number 8)* at www.israeleconomy.org/staregic8/eurasia.htm [19/08/2000].

"World Oil Chokepoints" (August 1999) *United States Energy Information Administration*, at www.eia.doe.gov/emeu/cabs/choke.html [11/12/2000].

Wyzan, Michael. "Transcaucasia/Central Asia: Oil, Gas No Cure For Economic Woes" *Radio Free Europe/Radio Liberty Energy Politics in The Caspian and Russia* at www.rferl.org/special/Caspian/index1999.html [03/02/1999].

**X**

Xu, Xiaojie. "Oil and Gas Linkages between Central Asia and China" *Unlocking the Assets: Energy and the Future of Central Asia and the Caucasus Working Paper*, James A. Baker III Institute for Public Policy (April, 1998), at www.riceinfo.rice.edu/projects/baker/publications/xuchina/xuchina.html [23/08/98].

**Y**

**Z**

Zhdannikov, Dmitry "LUKOIL makes big Caspian oil find" *Times of India* (24 March 2000) at www.timesofindia.com/240300/24intell.htm [23 June 2000].